

1991 ANNUAL EXHIBITION Imperial College, London SW7—26 October 1991

The following account of exhibits has been compiled by R. D. G. Barrington (British butterflies), B. K. West (British Macrolepidoptera), J. M. Chalmers-Hunt (British Microlepidoptera), B. Goater (Foreign Lepidoptera), P. J. Chandler (Diptera), R. A. Jones (Coleoptera and Hemiptera), A. J. Halstead (Hymenoptera and other orders) and E. S. Bradford (Illustrations). The photographs for the two colour plates were taken by D. E. Wilson.



Members and exhibits at the 1991 Annual Exhibition. Photos R. A. Jones.

Plate II. ANNUAL EXHIBITION 1991

1	2	3
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8	9	
10	11	12

1: *Lysandra coridon* ab. *obsoleta* + *glomerata*, 1991, R. C. Dennis.
 2: *Polyommatus icarus* ab. *alba-radiata*, 1991, A. M. Jones. 3: *Polyommatus icarus* ab. *radiata*, bred, 1991, L. D. Young. 4: *Anthocharis cardamines*, bred, 4.v.91, M. Callow. 5: *Thecla betulae*, bred, Surrey, 1991, L. D. Young. 6: *Colias alfacariensis* ab. *nov.*, Honiton, Devon, viii.91, D. Wedd. 7: *Melitaea cinxia*, bred, Isle of Wight, 1991, P. A. Standing. 8: *Maniola jurtina* ab. *crassipuncta* + *addenda*, Dorset, 1991, R. D. G. Barrington. 9: *Maniola jurtina* ab. *anommata*, 1991, R. C. Dennis. 10: *Xiphydria longicollis*, female, Wisley, Surrey, 3.ix.91, A. J. Halstead. 11: *Physocephala nigra*, male, Borrowdale, Cumbria, 26.vi.91, K. N. A. Alexander. 12: *Physocephala nigra*, female, Allt a Mhadaidh, E. Ross, 17.vii.91, I. Perry.

Photo: D. E. Wilson

BRITISH BUTTERFLIES

The great surprise of the year was the discovery by A. S. Harmer of a home-bred generation of *Colias alfacariensis* Berger on Portland, Dorset in September 1991. This species is now a very rare migrant to this country and has only doubtfully been recorded as breeding here, but enterprising work produced both full and empty pupae and therefore conclusive proof of the local origins of this brood.

BAILEY, K. E. J.—(a) Continued results from the exhibitor's valuable work on temperature experiments on newly formed pupae which he is now combining with photoperiodic stress to the late larvae. Amongst the results was a morphocline of *Argynnis paphia* L. f. *valezina* Esp. from minor aberrations up to ab. *ocellata* Frings = ab. *nigrizina* Frohawk (larval stress plus pupal cold shock). A series of intermediates of *Vanessa atalanta* L. ab. *klemensiewiczzi* Schille (larval stress plus pupal heat shock) and extreme forms of the same aberration from the same treatment. This regime also produced an unrecorded aberration having the costal white patch replaced by metallic blue. *Nymphalis polychloros* L. showing a morphocline of ab. *testudo* Esp. from the same treatment. Larval stress plus pupal cold shock produced intermediates of *Cynthia cardui* L. ab. *elymi* Ramb. and an example of *Eurodryas aurinia* Rott. ab. *melanoleuca* Cab.

(b) An example of *Mellicta athalia* Rott. with reduced forewing black which arose spontaneously from captive-bred, untreated stock. Possibly the application of a chemical to sterilize the ova (to reduce the chances of viral infection) was responsible.

(c) A bred series of *Lasiommata megera* ssp. *paramegaera* Hübn. (considerably less black patterning than the English form) bred in Devon from Corsican parents. These were crossed with Devon *megera*. When the female parent was ssp. *paramegaera* the larvae did not diapause but emerged in the autumn, the adults appearing intermediate between the two races. When the male parent was *paramegaera* the larvae entered diapause.

BARRINGTON, R. D. G.—(a) Insects bred in 1991. Two male examples of *Eurodryas aurinia* Rott ab. *virgata* Tutt bred in an F₁ brood of approx. 150 adults from a male aberration taken in Dorset in 1990 and paired with a wild-captured, type female; 5 or 6 males in the brood approached this form, the rest were typical.

Two female *Aphantopus hyperantus* L. ab. *cuneata* Gillmer bred F₂ from a *cuneata* male taken in Dorset in 1989 and paired with a wild, type female. The F₁ produced 49 adults (15 deformed) showing a graded series from type to these strong examples with most spots extended. The F₂ of 42 specimens contained 8 females (2 deformed) showing less well developed aberrational markings than the F₁ and 34 males (5 deformed), a few showing very weak *cuneata*. This appears to be a multifactorial form with a considerable weakening effect, especially in the female.

(b) Captured specimens. A male *Boloria selene* L. taken in Somerset, 1991 with the hindwing marginal spots confluent with the marginal silver lunules on the underside.

A range of aberrations of *Maniola jurtina* L. taken in two localities in North Dorset, one a hay meadow, the other a chalk down. Male examples included ab. *excessa* Leeds with a strong extra, orange-ringed spot on each wing of the upperside, and two extra spots on the underside of each forewing and five on each hindwing. Two albino aberrations, one of the grey form, ab. *grisea-argentacea* Oberthür and one of the white, ab. *cinerea* Cosmovici. A bilateral gyandromorph having two extra forewing spots, ab. *addenda* Mousley, on the female side only—a unique aberration in this species. Female forms included ab. *rufa* Leeds underside and an unnamed upperside form with the forewing fulvous replaced with chestnut. Two examples of homoeosis affecting the underside of the right hindwing, one with a strong streak

of forewing fulvous, the other with a large splash of upperside brown. An example of ab. *irregularia* Leeds had streaks of black and pale fawn in the median band of the underside of the left hindwing. A fresh ab. *pallens* Thierry-Mieg had the forewing fulvous reduced to creamy yellow and ab. *postfulvosa* Leeds had a strong orange band on the upperside of the hindwings. An extreme ab. *crassipuncta* Leeds also showed ab. *addenda* on the underside (Plate II, Figure 8).

BUTTON, S.—A selection of aberrations of *Lysandra coridon* Poda from S. Wilts. in viii–ix.1991, including abs *obsoleta/caeca* B. & L., *i-nigrum* Tutt, *basijuncta* B. & L. and *striata* B. & L. A minor gynandromorph of *Anthocharis cardamines* L. with orange streaks on the left forewing of an otherwise female insect.

A fine female *Maniola jurtina* ab. *fulvescens* Leeds with pale yellow-ochre ground colour, Wilts., ix.1991.

CALLOW, M.—A pair of *Anthocharis cardamines* (L.) bred from wild ova in 1991. The female (Plate II, Figure 4) had a huge discal spot and blackened costa, with fine streaks connecting the discal and apical black markings. The underside showed a similar tendency with extra black scaling below the discal spot. The male was a minor example of the same aberration. A fine melanic male aberration of *Boloria euphrosyne* L. with very heavily black hindwings and confluent spotting on the forewings. A female *Aricia agestis* L. with heavy spotting. 72 ova were laid to produce a type F₁.

DENNIS, R. C.—Two female *M. jurtina* ab. *antiauro lancea* Leeds with the upperside fulvous broken up into segments and a female ab. *antiobscura* Leeds with the fulvous suffused over with ground colour, from hay meadows in East Sussex where the cut was delayed by poor weather until August. The exhibitor recorded the best year for *jurtina* in this area since 1985. [R. Barrington confirms this for the Dorset area also.]

A downland locality with a strong population of *jurtina* produced an example of the very rare female ab. *anommata* Verity (Plate II, Figure 9).

A very unusual male *Lysandra coridon* Poda ab. *obsoleta-glomerata* B. & L. from Dorset, viii.1991 with the few remaining spots crowded in on the discoidals on all wings (Plate II, Figure 1).

DYKE, R.—A female *Lycaena phlaeas* L. ab. *cuprinus* Peyer from Dungeness, Kent, 1991.

ELSTON, MAJ. H. J.—*Lysandra coridon* Poda ab. *inaequalis* Cockayne, a female butterfly with blue streaks on the right hindwing, Hants., 1991.

FENSOME, B.—A strong female ab. *radiata* B. & L. of *Polyommatus icarus* Rott. with elongated spots on all wings. A male *radiata* with the black markings very faint and an attractive male from Guernsey with the forewings *radiata* and the hindwings *limbojuncta* Courv., with pale ground colour. All taken 1991. *Lycaena phlaeas* L., a male with the copper replaced by cream, a male with heavy spotting and darkened veins and a female with the upperside hindwing copper band beginning to ray inwards. *Pyronia tithonus* L. with a reduced and doubled apical spot.

HALL, D.—F₁ and F₂ generations from *Pieris napi* L. ab. *fasciata* Kautz, both broods showing the aberration in the female and some males showing a tendency towards it. This is a multifactorial form from which extreme examples can be obtained by sustained inbreeding.

HALSTEAD, A. J.—A male *M. jurtina* L. ab. *partimtransformis* Leeds with bleaching affecting both right wings, West Horsley, Surrey, 1991.

HARMER, A. S.—The exhibitor discovered a home-bred brood of *Colias alfacariensis* Berger on Portland, Dorset in ix.1991. Ten males and five females were found between 10 and 25.ix and two full and two empty pupae were found (believed to be the first authenticated instance of breeding in this country). With a further 16 examples captured

by B. F. Skinner and A. J. & C. T. Pickles a total of 22 males and 9 females were found in this brood. Considering the extreme rarity of the species in this country now, this is a very notable finding. The location was ideal with an abundance of the food-plant *Hippocrepis comosa* L. As all specimens were found in one cutting it suggests that the brood was the progeny of one immigrant female. Two further examples shown by D. Wedd from Devon confirm that some sort of immigration took place in August. Any further records that come to light will reveal the extent of the influx.

Two second brood *Hamearis lucina* L. bred from the Isle of Wight. The remaining 13 pupae are overwintering. An interesting series of *Eurodryas aurinia* ssp. *scotica* Robson bred from Mid-Argyllshire. These were considerably darker than their southern counterparts, lacking much of the pale coloration from the centre of the forewings. A male *Pyronia tithonus* L. with the sex brand of the right forewing continued into the discal cell. A fresh female *Maniola jurtina* ab. *addenda* Mousley with two extra spots on the upperside of each forewing. A male *Hipparchia semele* L. ab. *holonops* Brouwer from Dorset, 1991.

JONES, A. M.—(a) A selection of aberrations captured during 1991 included two attractive fritillaries—a female *Boloria selene* L. with confluent markings on the margins of all wings on the upperside and blackened hindwing bases, approaching ab. *nigricans-parvipuncta* Ober. and a *B. euphrosyne* L. ab. *tatica* Aign. A pair of very heavily marked *L. coridon* ab. *parallela* B. & L. taken on consecutive days from the same locality. A female transitional to ab. *striata* B. & L. from this location has produced an F₁ with a tendency to dribbled spots (the equivalent aberration in *L. bellargus* Rott. was bred to F₈ by L. D. Young and proved to be inherited in a rather unpredictable manner). A startling *Polyommatus icarus* Rott. ab. *radiata* B. & L. The streaking on the forewings was very heavy and the hindwing spots were beginning to streak also. The hindwing costal spots were joined in a long heavy stripe (= ab. *costaextrema* B. & L.) and the ground colour was powdered with white (Plate II, Figure 2). This is probably one of the most extreme underside varieties of the species on record. Captured ix.1991.

(b) The results of breeding from a wild captured male *Boloria selene* with the central markings of the upperside reduced, taken 28.vi.1991. It was paired with a type, bred female. The F₁ (vii/viii.1991) contained 34 type specimens and the F₂ (ix/x.1991) consisted of 40 males with 5 aberrations (12.5%) and 39 females with 8 aberrations (16.4%). The F₃ generation is overwintering. Although the ratio of aberrations in the F₂ (16.45%) is below the 25% expected for a simple recessive it is likely that this aberration is a simple recessive. The bred aberrations had the ground colour a little paler than type and most of the upperside markings reduced and fading out. The basal area of the underside hindwings is washed out and the forewing markings are ghostly.

Three broods from a captured *Parage aegeria* L. ab. *parviocellata* Lempke. These confirmed results from previous breeding of this aberration by the exhibitor that this is a dominant form with 50% aberrations in the F₁. Some extreme examples occurred in the F₃ with no hindwing spots and little of the pale surrounds remaining. One female specimen lacked the apical spot of the right forewing.

Two broods from a captured female aberration of *L. coridon* similar to ab. *cinnameus* B. & L. The breeding results suggest that it is a new aberration. The F₁ contained only type specimens and the F₂ of 78 specimens contained 20 aberrations (25.64%) showing it to be clearly a recessive form. The expression of this aberration is variable some females being far darker than *cinnameus* and the males varying from little paler than type to examples approaching ab. *livida* Gillmer.

KNILL-JONES, S. A.—*Lycaena phlaeas* L. with the left forewing silvery grey and the rest of the insect typical.

MACNULTY, B. J.—Butterflies from the Gower Peninsula shown as part of an ongoing series of exhibits to cover most of the Lepidoptera of the area. Twenty-six species were shown including *Eurodryas aurinia* Rott., common in places; *Boloria selene* L. and *B. euphrosyne* L., neither common, as with *Argynnis paphia* L. and *Mesoacidalia aglaja* L.; *Hipparchia semele* L., widespread and common; and a range of common satyrids; migrants such as *Pontia daplidice* L., last seen 1945, *Colias croceus* Geoffroy, a few seen most years, and *Colias hyale* L., very occasional.

NASH, S.—*Maniola jurtina* L. ab. *grisea-argentea* Ober., Bucks., 1991 and *Colias croceus* Geoffroy, Berks., 1991.

PARKES, J.—*Aphantopus hyperantus* L. with one forewing bleached and a similar example of *Pyronia tithonus* L. A. *hyperantus* ab. *arete* Muller and a *Boloria euphrosyne* L. male approaching ab. *obsoleta*. A series of *Erebia epiphron* L. from Ben Lawers, Tayside, vi.1990 showing a wide range of variation in size and intensity of the markings characteristic of this highly variable species.

PATEMAN, J. E.—A very interesting exhibit of three generations bred from two female aberrations of *Lysandra coridon* of the same form as that bred by A. M. Jones. The F₁ was type. The F₂ of 196 insects contained 30 male and 8 female aberrations (19.4%) and 17 females with aberrant underside markings including abs *arcuata* Courv., *bi-i-nigrum* B. & L., *caeca* B. & L. and a good female with extended forewing spots. Pairings were taken from 8 male upperside aberrations and 6 females with type uppersides and slightly aberrant undersides. At the time of the exhibition F₃ emergences comprised 8 male and 12 female upperside aberrations and 13 male and 5 females with type uppersides, some specimens having some underside aberration.

A remarkable female *Anthocharis cardamines* L. showing very heavy black scaling joining the discal spot to the apical patch on the upperside of the left forewing. Bred 1991 from wild ova. Two male examples of the very rare *Maniola jurtina* L. ab. *postauroulanca* Leeds and a female upperside ab. *post-excessa* Leeds with a single extra spot on each hindwing. Three strong male examples of *Pyronia tithonus* L. ab. *excessa* Leeds, a male with a small apical spot and an underside ab. *lanceolata* Leeds.

PICKLES, A. J. AND C. T.—One female and 6 male *Colias alfacariensis* Berger from Portland, 14 and 15.ix.1991 with examples of *Colias croceus* Geoffroy and *Colias hyale* L. for comparison.

REVELS, R. C.—A showing of the exhibitor's highly successful breeding work with *Lysandra coridon* Poda aberrations from 1969 to 1982. This included the first breeding of ab. *fowleri* South (a simple recessive) which was subsequently paired in with abs *semisyngrapha* Tutt and *tithonus* Meig. (both sex-linked recessives) to produce beautiful examples of the double aberrations. Another experiment with ab. *marginata* B. & L. showed this to be a multifactorial form and produced a particularly extreme male example with the borders extending to the discoidal. Unexpected aberrations cropped up during the breeding including a male approaching ab. *radiata* B. & L. and a male ab. *striata* B. & L.

A case of extreme melanic forms of *Aglais urticae* L. from cold-shocked pupae.

ROBERTSON, T. S.—The results of breeding from *Lycaena phlaeas* L. ab. *auronitens* Leeds—*partimauroradiata* Leeds taken Berks., vi.1991. The 36 F₂ examples showed an almost exact 9 : 3 : 3 : 1 ratio for wild type: *pallidula* : *radiata* : *pallidula-radiata* as would be expected for a double recessive. However as some of the type examples showed *partimauroradiata* this may be a heterozygote for *radiata* which is therefore not a pure recessive form. The original parent must have been heterozygous for *radiata* and *pallidula* or it may have paired with a male heterozygous for this latter character. A series of ab. *obsoleta* Leeds bred in 1989 were shown for comparison.

SKINNER, B. F.—Five male and 3 female *Colias alfacariensis* Berger from Portland, 13–20.ix.1991 with photos of newly emerged adults and of the habitat.

STANDING, P. A.—The results of a fourth inbred generation of *Melitaea cinxia* Rott. from a brood of approx. 3000 insects. One fine underside aberration was shown (Plate II, Figure 7) with much of the hindwing markings obsolete on the underside and the remainder concentrated around the base of the wings, the forewings showing heavy discal markings. The extreme melanic upperside was much like an example bred from this strain in 1990 and photographed for the exhibition plate. Some examples, like the parents of this brood were minor forms of ab. *wittei* Geest and some were transitional to the above aberration.

TREMEWAN, W. G.—*Aglais urticae* L. ab. *impuncta* lacking the twin discal spots, Oxford, ix.1991 and an example with smokey brown ground colour, bred Perranporth, Cornwall, ix.1991.

TUBBS, R. S.—Two male *Fabriciana adippe* L. f. *cleudoxa* Ochs. bred in the F₃ generation from an original aberration taken at Arnside, Cumbria by R. W. Perkins in 1989. The F₁ contained 50% aberrations showing this to be a dominant form. A very rare aberration in Great Britain but common in Hungary, Romania and the Balkans and apparently the only form of *adippe* to be found in parts of Greece.

Two drawers showing the results of breeding aberrations of *Aphantopus hyperantus* L. This included ab. *lanceolata* Shipp bred to the F₄ with the most extreme specimens occurring in the last generation. This is a recessive form with some modifying genes and so is very variable in expression. The similar ab. *cuneata* Gillmer (without the extended pupils) was bred in the F₁ from a New Forest parent. An F₂ from ab. *arete* Muller contained 29% *arete*, 21% with reduced spotting and 50% type. *Arete* appears to be a recessive in which the heterozygote may show some degree of variability.

WEDD, D.—(a) A selection of Irish butterflies including some named subspecies. *Erynnis tages* L. ssp. *baynesi* Huggins, *Leptidea sinapis* L. ssp. *juvernica* Will. (this lovely form, unlike its duller English relative, is common throughout its range, being found on roadsides, waste ground and woodland), *Pieris napi* L. ssp. *britannica* Verity, *Polyommatus icarus* Rott. ssp. *mariscolore* Kane and the very dark *Hipparchia semele* L. ssp. *hibernica* Howarth. A series of *Maniola jurtina* L. ssp. *iernes* Graves illustrated the variable nature of this subspecies and the exhibitor questioned its validity as a subspecies. *Parage megera* L. from S.E. and W. Ireland.

(b) A probably unique female aberration of *Colias alfacariensis* Berger (Plate II, Figure 6) showing much the same loss of yellow pigment and its replacement by a blue shade that occurs in the very rare *Pieris brassicae* L. ab. *coerulea* Gardiner and a type male, both from Honiton, Devon viii.1991.

(c) A remarkable series of *Celastrina argiolus* L. showing unexpected emergence times from Bisham Abbey Sports Centre, Marlow, Bucks. Wild-caught specimens were taken in iv, vii, x, xi.1990 and ii.1991 and adults were bred from wild larvae in vii and ix.1990 and iii.1991. The sports field floodlights are directly above an ivy-covered wall with a bush nearby and are on from 10 p.m. during the autumn and winter. The enclosed area is also several degrees warmer than outside. This suggests that circumstances are forcing pupae, that would otherwise overwinter, to emerge as a third or even fourth brood in October/November, and that overwintering pupae are forced out exceptionally early in the year.

WINTER, P. Q.—A male *Thymelicus sylvestris* Poda approaching ab. *pallida* Tutt with almost white ground colour from Muston, S.E. Yorks., vii.1991. *Celastrina argiolus* L. from the same locality on i.viii.1991—a first record for the area. It had been absent from the Scarborough area from May 1951 to April 1990. It is interesting that after a 3-year period of abundance in the south there are now

records of high levels of parasitism in wild-collected larvae and the species may be on the decline again.

YOUNG, D. A.—Series of the two dwarf races from Great Orme's Head, Caernarvonshire—*Plebejus argus* L. ssp. *caernensis* Thompson and *Hipparchia semele* L. ssp. *thyone* Thompson.

Aphantopus hyperantus L. ab. *lanceolata* Shipp (not strong examples) bred from 12 larvae collected in a small area of Salcey Forest during work. Six of the brood showed this tendency. *Coenonympha tullia* L. of the heavily marked ssp. *davus* F. from Cumbria and the lightly marked ssp. *scotica* Staud. from Mull.

YOUNG, L. D. AND POTTER, DR N. B.—(a) A strongly aberrant bred *Thecla betulae* L. male (Plate II, Figure 5) with the white bands of the underside reduced and almost obsolete on the forewings and closed together on the hindwings joining half way down the wings with a circle of white below.

(b) The continued saga of breeding from *Polyommatus icarus* Rott. abs *discoelongata* B. & L. and *basielongata* B. & L. now into its seventh year. The resulting insects from this intensive and highly selective programme continue to become more extreme with a good number now showing fine ab. *antiradiata* B. & L. some with extreme *basielongata*. After so much inbreeding in which, apart from the odd specimen, the hindwing submarginal spots have remained type, a tendency is now seen for these spots to become radiate also (Plate II, Figure 3), and the best specimens are now being selected as parents for further generations. Other interesting specimens included one with the forewing spots extended inwards in the manner of ab. *striata* B. & L., some ab. *decrescens* B. & L. where missing veins cause the black markings to join down the wings and a female upperside with white submarginal spotting.

BRITISH MACROLEPIDOPTERA

CLANCY, S.—*Aplasta ononaria* Fuess. and *Bembecia chrysidiformis* Esp. from Folkestone, and *Sesia apiformis* Clerck from Grain, Kent. From Dungeness four specimens of *Cryphia raptricula* D. & S., 1991, *Drepana curvatula* Borkh. and *Lymantria dispar* L., 21.viii.91, *Macdonoughia confusa* Steph., 9.x.91, and the first British record for *Peribatodes manuelaria* H.-S. from Lydd (Plate III, Figure 6). Also from Dungeness specimens of *Orthosia gothica* L. ab. *circumsignata* Hasebroek (Plate III, Figure 9) (two), *Photodes fluxa* Hübn. and an aberrant *Hecatera bicolorata* Hufn. (Plate III, Figure 3).

CLARKE, DR J.—Specimens included *Spodoptera cilium* Guen., Coverack, Corn., 30.ix.90 (Plate III, Figure 1), the first British record; *Achlya flavicornis galbanus* Tutt ab. *confluens* Klem. from Lingfield, Surrey; an asymmetrical aberration of *Xestia triangulum* Hufn.; *Synanthedon vespiformis* L. from larvae and pupae found in sweet chestnut, Dormansland, Surrey; *S. myopaeformis* Borkh., bred from cherry; *Sesia apiformis* Clerk from Whiteleaf, Surrey; *S. bembeciformis* Hübn. from larvae and pupae in sawfly from Brindley Heath, Surrey; *Heliothis virescens* Hufn. from Tilshead, Wilts.

COLENUTT, S.—From Chale Green, I.o.W. *Heliothis peltigera* D. & S., 26.vii.91 and *Idaea vulpinaria* H.-S. 28 and 31.vii.91.

COLLINS, G.—Uncommon species recorded in 1991. *Anarta melanopa* Thunb., Easternness, 1 June, many seen, eggs obtained but all larvae died when full grown; *Herrinia tarsicrinalis* Knoch from E. Suffolk, 20 July.

COOK, R.—Insects taken in 1991. *Polia bombycina* Hufn. (bred) from Tilshead, Wilts.; *Agrotis cinerea* D. & S., 27 May at Kings Somborne, Hants.; *Luperina nickerlii gueneé* Doubl. from Prestatyn, N. Wales, 25 August, and *L. n. nickerlii* Freyer from

Canewdon, Essex 18 August; *Catocala promissa* D. & S., Brockenhurst, Hants., 4 August, and bred specimens of *Agrotis ripae* Hübn. from Rosslare, Wex.

CRAMP, P.—*Lymantria dispar* L., Godshill, 1.o.W., 28.viii.91, the first record for the island.

DOBSON, A.—*Hypena obsitalis* Hübn. obtained flying where a colony existed the previous year. Two specimens of *Diachrysia chryson* Esp. taken at light, Kingsworthy, Hants.; an apparently unnamed variety of *Diachrysia chrysitis* L. from Goodworth Clatford, Hants., 2.vii.91 and a dark *Furcula bifida* Brahm from Hants.

DYKE, R.—*Zygaena filipendulae stephensi* Dupont ab. *flava* Robson from Berwick on Tweed, 16.vii.91.

EMMET, A.—From Saffron Walden, Essex, a gynandrous *Agrotis exclamationis* L. (genitalia male) and a very dark *Autographa gamma* L., 25.viii.91.

FOSTER, A.—*Idaea biselata* Hufn. ab. *fimbriolata* Steph. from Brundall, Norf., 4.viii.91, and from the same locality *Melanchnra persicariae* L. with both reniform and orbicular stigmata white, and a silvery sheen to the forewings, 25.vii.91, and two *Eurois occulta* L., 8 and 12.viii.91. Three of five *Chrysodeixis chalcites* Esp. taken at Littlehampton, Sussex, 13.x.91.

HALL, N.—*Spodoptera cilium* Gn. taken at Portland by M. Rogers and M. Cade, 1.x.90, and European examples of the species from Spain. Also from Portland *Chrysodeixis chalcites* Esp., 13.ix.91 and a pale form of *Luperina testacea* D. & S., September 1991. From Reading a dark *Thera obeliscata* Hübn., 8.x.91 and a very dark *Cryphia domestica* Hufn., 22.viii.91.

HALSEY, J. AND M.—*Schranksia taenialis* Hübn. obtained at the late date of 2.x.91.

HARMAN, T.—From Kent, 1991: *Euxoa cursoria* Hufn., Reculver, 3 July; *Eurois occulta* L., Port Regis, 10 August; *Photodes fluxa* Hübn., Kingsgate, 11 July; *Mythimna vitellina* Hübn., Westbere, 2 October. Other interesting exhibits included an *Arctia caja* L. with brown forewings and blue-black hindwings from Medmenham, Bucks., 15.vii.64 (Plate III, Figure 14); bred *Conistra rubiginea* D. & S. from Woking, Surrey, 1973; *Xanthia ocellaris* Borkh. bred from larvae from Medmenham, 1962; a gynandrous *Agrotis exclamationis* L. from Canterbury, 6.vi.80; *Syngrapha interrogationis* L. from Salthouse Heath, Norf., 28.viii.72; an unusual aberration of *Semiothesa clathrata* L. from Holkham, Norf., 12.vii.72 (Plate III, Figure 4), *Cryphia raptricula* D. & S. (two) from Worth and Sandwich, Kent, 9.viii.69, and *Abraxia grossularia* L. from Chesterfield, 21.vi.74 (Plate III, Figure 10).

HART, C.—From Reigate, Surrey, *Dicallomera fascelina* L. 9.viii.91, not previously recorded from N. and E. Surrey; *Thumatha senex* Hübn., on the same data, a rarity in the county; *Schranksia costaestrigalis* Steph. and *Epione repandaria* Hufn., both very scarce in N.E. Surrey.

HAYWARD, R.—Fifteen unnamed aberrations of *Mimas tiliae* L., showing a great variety of hindwing variation. *Eupithecia millefoliata* Rössler from Slough, first seen there in 1990; also from Slough *Conistra rubiginea* D. & S., 1.vi.91, not previously seen there, *Archanara geminipuncta* Haw., and *Polymixis flavincta* D. & S. which first appeared there in 1985. Also shown were several *Cryphia domestica* Hufn. ab. *distincta* Tutt, 6.viii.60 from Portsmouth, ab. *suffusa* Tutt, 17.6.59 from Portsmouth and ab. *flavescens* Tutt, 14.viii.78 from Plymouth.

HECKFORD, R.—A smoky variety of *Xanthorhoe fluctuata* L., Plympton, Devon, 3.ix.91; melanic *Apamea ophiogramma* Esp. bred from larvae on *Phragmites*, Newton Abbot, Devon, 14.v.91 and *Hypena obsitalis* Hübn. from Torbay, 6.ix.91.

HENWOOD, B.—A piece of *Salix cinerea* L. branch showing evidence of feeding by *Cossus cossus* L. larvae, and one of them at present being fed on carrot.

HIGGS, G.—Aberrations of a number of moths including *Lomaspilis marginata* L., *Cyclophora punctaria* L. (Plate III, Figure 11) and *Opisthograptis luteolata* L.

JENKINS, A.—Included were *Cossus cossus* L. from Chardstock, Devon, the yellowish form of *Hadena confusa* Hufn. from the Lizard, Corn. and *Sedina buettneri* Her. from S. Kent.

KIRBY, P. AND LAMBERT, S.—Various insects bred from a log of willow between April and June 1991, including *Synanthedon formicaeformis* Esp.

KNILL-JONES, S.—A large exhibit of insects from Freshwater, I.O.W., including bred series of *Lithophane ornitopus* Hufn., *Rheumaptera undulata* L. and *Conistra rubiginea* D. & S. Also, specimens of *Acronycta aceris* L. ab. *infuscata* Haw.; *Eumichtis lichenea* Hübn., a bluish grey form, 5.x.91; *Calliteara pudibunda* L. ab. *concolor* Staud., 30.v.91; *Apocheima hispidaria* D. & S., 6 and 14.iii.91; a dark form of *Ennomos quercinaria* Hufn., 3.viii.91; *Lobophora halterata* Hufn., 14.v.91 and from Tennyson Down, *Euplagia quadripunctaria* Poda. (a dead specimen, no date given). From Freshwater three specimens of *Idaea vulpinaria* H.-S., 30.vii and 8.viii.91, a species new to the island.

LANGMAID, DR J.—From Southsea, Hants., two *Idaea vulpinaria* H.-S., July 1991; *Cryphia algae* Fab., 21.viii.91 and *Mythimna albipuncta* D. & S., 22.viii.91.

MCCORMICK, R.—*Athetis palustris* Hübn. larvae obtained from a pairing and being forced. A pupa was obtained 28.ix.91 and a female emerged 10.x.91; a second pupa was formed 5.x.91 and a further female emerged 19.x.91.

MIDDLETON, H. G.—Moths from the Gower Peninsula, S. Wales included: *Rheumaptera undulata* L., *Mythimna putrescens* Hübn., *Diachrysis chryson* Hübn., *Deileptenia ribeata* Clerck and *Abraxas sylvata* Scop.

NASH, S.—From Fernham, Berks., *Autographa iota* L., showing variation in the Y mark, 10–18.vii.91; *A. gamma* L. ab. *nigrescens* Spuler, 15.ix.91; *Callimorpha dominula* L., 30.vii.91 and a melanic *Charanyca trigrammica* Hufn., 3.vii.91. From a new colony in N.W. Hants. *Meganola albula* Den. & Schiff., 22.vii.91.

PARKES, J.—*Zygaena trifolii palustrella* Verity from Dorking, Surrey, illustrating confluence of spotting.

PARSONS, M.—*Acronycta menyanthidis* Esp. from Roydon Common, Norf., 27.vi.91; *Hemistola chrysoprasaria* Esp. from larvae obtained at Dungeness, 25.v.91; *Trogonophora flammea* Esp., Littlehampton, Sussex, 16.x.90 and *Cleora cinctaria* D. & S. from Caernarvonshire, 28.iv.91.

PEET, T.—Two *Cryphia algae* F. from Forest, Guernsey, 24.ix.90, the first record for the Channel Islands; also a series *C. muralis* Forst. from Guernsey showing variation.

PHILLIPS, J.—From the Isle of Mull, 1991: *Perizoma blandiata* D. & S., *Zygaena loti scotica* Rowland Brown, and *Hepialus fusconebulosa* De Geer. Also, *Hemaris fuciformis* L. bred from larvae, Chiddingfold, Surrey.

PICKLES, A. J. AND C. T., AND WILD, E.—*Idaea vulpinaria atrosignaria* Lempke from Highcliffe, Dorset, 29.vii.91.

PLATTS, J.—A bred series of *Mythimna putrescens* Hübn. from feral larvae, Croyde Bay, Devon, November to December 1990, and a bred series of *Lacanobia w-latimum* Hufn. from eggs found at Royston, Herts., 15.v.90.

PRATT, C.—*Biston betularia* L. having the forewings of f. *insularia* Th.-Mieg, and hindwings normal, white head, black thoracic crest, mainly white thorax and black body with white anal tuft.

ROUSE, T.—*Catocala fraxini* L., a female from Densole, Kent, 17.x.90 and *Agrius convolvulvi* L. larvae found at Greatstone, Kent, 27.ix.91.

SIMMONS, M.—Fifteen species of notodontids obtained at light at Crowborough, Sussex in 1990 and 1991, which included *Furcula bifida* Brahm, *F. bicuspis* Borkh.,

Stauropus fagi L. and *Clostera curtula* L. and the following migrants: three *Lymantria dispar* L., 21.viii.91, *Mythimna albipuncta* D. & S., 24.x.91 and *Agrius convolvuli* L., 21.ix.91.

SIMPSON, BRIG. E.—Aberrations of *Hyloicus pinastri* L., *Laothoe populi* L. and *Mimas tiliae* L. Aberrations occurred only in the female sex of *L. populi* over three generations.

SKINNER, B.—A bred series of *Hypena obsitalis* Hübn. from a female taken at Torbay, 11.viii.91; an extreme aberration of *Arctia caja* L. with white forewings and orange-red hindwings, Southwold, Suff., 2.viii.91 (Plate III, Figure 13); *Autographa gamma* L. *nigrescens* Spuler, Swanage, Dorset, 10.ix.91; *Euproctis similis* Fuess. ab. *nigrostriata* Cockayne, Dungeness, 12.viii.91; *Aspitates ochrearia* Rossi. ab. *conjuncta* Lempke, Dungeness, 26.viii.91; *Semiothisa clathrata* L. ab. with bands 1 and 2, and 3 and 4 united; and a series of *Hadena caesia* D. & S. bred from larvae obtained at Castletown, I.o.M. in July 1990.

SMITH, C.—A series of *Agrochola haematidea* Dup., a species new to Britain (Plate III, Figure 5).

SOFTLY, R.—Map and extracts illustrating the status of *Xanthia ocellaris* Borkh. in N.E. Surrey and Essex in 1983, and bred examples of the moth from Hampstead, London.

SPENCE, B.—From Spurn Head, Yorks., a melanic *Euproctis similis* Fuess.; the first Yorkshire specimen of *Eilema pygmaeola* Doubl.; *Hadena compta* D. & S., the second specimen for the county; *Mythimna unipuncta* Haw., 14.x.89 and *Apamea lateritia* Hufn., 17.vii.91. Also *Eilema griseola* Hübn. and *Scopula immutata* L. which are rare in the county.

STERLING, COL. D., DR P. AND M.—*Xanthorhoe biriviata* Borkh. from Winchester, Hants. (a new record for vice county 11). A melanic *Peribatodes rhomboidaria* D. & S. from Didcot, Oxon.

TREMEWAN, W.—Aberrations of *Zygaena trifolii decreta* Verity from Cornwall, comprising examples with confluent spotting, reduced spotting, including specimens with spots 3 and 4 vestigial, and a rare dominant form with spot 6 present and attached to spot 5.

WARING, P.—*Anaitis efformata* Guen. lacking central fascia from Wittering Copse, Northants., 22.vi.91; *Mimas tiliae* L. ab. *brunnea* Bartel from Peterborough, 22.vi.91. Also exhibited was a display illustrating the results of the 1991 survey of the distribution and status of *Cucullia lychnitis* Ramb.—larvae were found in Oxfordshire, Buckinghamshire, Hampshire and W. Sussex, but not in Wiltshire where two decades previously it was common.

WARREN, P.—A very pale aberration of *Aplocera efformata* (Guen.), Collyweston, Northants., 14.viii.91 (Plate III, Figure 7).

WEDD, D.—From Essex in 1991 a bred series of *Eupithecia extensaria* Freyer paler than typical Norfolk specimens, and *Pelosia muscerda* Hufn. from Bradwell-on-Sea, perhaps a migrant. From the Marlow area of Bucks. uncommon species, including some not previously recorded including *Apamea oblonga* Haw., *Celaena leucostigma* Hübn., *Dicycla oo* L., *Apoda limacodes* Hufn., *Elaphria venustula* Hübn., *Eupithecia phoeniceata* Ramb., *Plusia putnani* Grote, *Cybosia mesomella* L. and f. *flava* de Graaf and *Herminia humidalis* Doubl. In addition were shown a series of *Parascotia fuliginaria* L. bred from larvae from near Marlow and the one survivor of a natural pairing between *Hoplodrina blanda* D. & S. and *H. ambigua* D. & S.

WINTER, P.—Local and scarce species from Yorkshire; from Muston, *Euproctis chrysorrhoea* L. (Plate II, Figure 12), *Eupithecia insigniata* Hübn., *Aporophila nigra*

Haw. and *Amphipoea lucens* Freyer; from Flamborough Head, *E. simplicata* Haw. and from Malton, *Drymonia dodonaea* D. & S.

YOUNG, D.—*Scotopteryx peribolata* Hübn. taken at Studland, Dorset, 12.ix.90 (Plate III, Figure 8); *Euplagia quadripunctaria* Poda ab. *lutescens* Staud. from Portland, probably an immigrant; *Diacrisia sannio* L. ab. *maerens* Strand, Cumbria, 1.vii.91; a dark form of *Idaea aversata* L.; and *Zygaena loti scotica* Rowland Brown from the Isle of Mull with an ochreous ground colour to the forewings, a common form among the local population.

BRITISH MICROLEPIDOPTERA

AGASSIZ, CANON D.—A series of *Phyllonorycter platani* Staud., bred from South Kensington, Notting Hill and Kew Gardens. A series of *Myrmecozela ochraceella* Tengst. from Morrone NNR, Braemar, Aberdeenshire, 4.vii.91. A series of *Rhigognostis incarnatella* Steud. bred from *Hesperis*, Grantown-on-Spey, Morayshire, vii.91. A series of *Catoptria furcatellus* Zett. from Beinn Eigh NNR, West Ross, 5.vii.91

AGASSIZ, CANON D. AND NASH, DR D.—The firethorn leaf miner project. Maps and diagrams describing the spread of this species (*Phyllonorycter leucographella* Zell.).

BAKER, B. R.—(1) Micros taken or bred from Berkshire (VC22), 1991. *Antispila hammoniella* Sorh., Bucklebury Common, 11.v.91, adults beaten from *Betula*. *Narycia monilifera* Geoff., Mortimer West End, cases 9.vi.91, adults bred. *Diplodoma herminata* Geoff., Sulham Woods, cases 1.vi.91, one imago and one parasite bred. *Glyphipterix forsterella* F., Redhill Wood, 8.vi.91; Moor Copse NR, 20.vi.91. *Coleophora hemerobiella* Scop., Churn, Berks. Downs, bred 10.vii.91. *C. pyrrehulipennella* Zell., Wellington College, cases 6.vi.91, adults bred. *Caryocolum tricolorrella* Haw., Mortimer West End, larvae 8.iv.91, adults bred. *Blastobasis decolorrella* Woll., Old Copse, Early, Reading, 12.vii.91, one at m.v. *Pancalia leuwenhoekella* L., North Unhill Bank, 25.v.91. *Epagoge grotiana* F., Moor Copse NR, 20.vi.91. *Cydia internana* Guen., Wokefield Common, 27.v.91. (2) From Hampshire (VC12). *Phlyctaenia perlucidalis* Hübn., Burghclere, 11.vii.91, one at m.v. per G. G. Eastwick-Field.

BLAND, DR K. P.—*Scrobipalpa acuminatella* Sirc., reared from mine in *Tussilago farfara* from Craighburn (grid ref. NT2354), Peebleshire (VC78), coll. 2.ix.90, em. 23.v.91, unusual pabulum. *Pselnophorus heterodactyla* Müller, Falls of Fender (grid ref. NN8766), Perthshire (VC89), reared from larvae in *Mycelis muralis* coll. 31.viii.90, em. 13.vi.91, and *Crepis paludosa* coll. 23.vi.91, em. 12.vii.91; and from Keltneyburn (grid ref. NN7650) Perthshire (VC88), in *C. paludosa*, coll. 8.ix.90, em. 22.vi.91, rediscovered in Scotland after 70 years.

CLANCY, S.—*Psammotis pulveralis* (Hübner), Dungeness, 3.viii.90 (Plate III, Figure 15).

CHALMERS-HUNT, J. M.—Two cabinet drawers containing very nearly all the 108 Coleophoridae on the British list, together with their cases and numerous examples of hymenopterous parasites.

CRAMP, P. J.—*Epiphyas postvittana* Walk., Osborne, Isle of Wight, at m.v. 13.ix.91, new to the Isle of Wight list.

EMMET, LT. COL. A. M.—*Phyllonorycter platani* (Staud.), South Kensington, reared 1991 from mines collected at last year's Exhibition, the species then being new to Britain. *Acrocercops brongniardella* (F.), vacated mines collected in Essex in ix.1991. This species has undergone a sudden and dramatic increase in range and abundance. For example, the last dated record from Essex was made in 1846 but this year the

exhibitor found it in 37 of the 39 10 × 10 km squares in which he looked. He also made new vice-county records for VCs 25, 26 and 31. *Parornix* spp., Saffron Walden, at m.v. light, 20.viii.91. An exceptionally pale specimen. *Parornix* spp. have white forewings with a pattern formed by dark-tipped scales which may be reduced in number. An extreme example occurred in *P. alpicola* (Wocke) which produced almost white specimens. These were at first thought to be a distinct species—*P. leucostola* Pelham-Clinton. The specimen exhibited was probably *P. scoticella* (Staint.) feeding on *Malus*. *Coleophora aestuariella* Bradley, Pelham, Essex, reared vii–viii.91 from cases on *Sueda maritima* (L.) collected the previous October. *Coleophora salicorniae* Wocke, Fingringhoe Wick NR, Essex, reared 14.viii.91 from cases on *Salicornia* collected the previous October. *Amphisbatis incongruella* (Staint.), Barton Mills, West Suffolk, netted 13.iii.91, new to the county. *Monochroa lutulentella* (Zell.), Saffron Walden, Essex, at m.v. light, 14.vii.91, the fourth Essex specimen. *Gelechia nigra* (Haw.), Saffron Walden, Essex, at m.v. light, 5.viii.91. A specimen with the base of the abdomen yellowish. In his key, Meyrick (1929) uses the *absence* of this character to separate this species from its congeners. *Eucosma pauperana* (Dup.), Saffron Walden, Essex 21, 25.v.91, possibly the first specimens from this classic locality since the 19th century. *Crambus hamella* (Thunb.), Saffron Walden, at m.v. light, 5.ix.91, new to VC19. The nearest known colony is at Barton Mills, Suffolk, about 30 miles away. *Hypochalcia ahenella* (D. & S.), Saffron Walden, at m.v. light, 3.vii.91, the second record for VC19, the first having also been taken in north-west Essex.

HARLEY, B. H.—A selection of 25 of the species of pyralid moths that have been collected at Great Horkesley, Essex or the adjacent village of Boxted. These include *Catoptria falsella* D. & S.; *Evergestis pallidata* Hufn.; *Pyrausta purpuralis* L. (first record for VC19 for over 30 years—collected 1.viii.91); *Aglossa caprealis* Hübn. (Plate III, Figure 16) (first record for VC19 for over 30 years—collected 22.vii.91); *A pinguinalis* L.; and *Ephestia kuehniella* Zell.

HARPER, DR M. W. AND SIMPSON, DR A. N. B.—Microlepidoptera collected in Hereford and Ireland. *Agonopterix astrantiae* Hein., Burren, Co. Clare, bred from *Sanicula europaea*, v.91; new to Ireland. *Mompha divisella* H.-S., Little Marsh, Herefordshire, bred from galls in flowering stems of *Epilobium hirsutum*, coll. viii.91, bred early ix.91, not previously recorded on this foodplant.

HECKFORD, R. J.—*Infurcitinea albicomella* H.-S. Torquay, Devon bred 27.vi–22.vii.91 from larvae collected 26.iv and 7.vi.91 on dead *Cotoneaster* leaves and detritus, with three cocoons; larva previously unknown; adults taken 25.vii.91, same locality. *Coleophora adjectella* H.-S. Torquay, Devon bred 6–14.vi.91 from cases collected 26.iv.91, *Prunus spinosa*; new to Devon. *C. lassella* Staud., Church Ope Cove, Portland, Dorset 27.v.91. *Mompha subdivisella* Bradley, Stratford-upon-Avon, Warwickshire, bred 21.ix.91 from pupae collected 13.ix.91, on *Epilobium hirsutum*. *Cydia prunivorana* Rag., Plympton, Plymouth (exhibitor's garden), 1 and 11.vii.91 at light; new to Devon, previously known only from five specimens, all from Kent. *Pterophorus fuscolimbatus phillipsi* Huggins, Kennack Sands, Cornwall, 7.viii.91; The Gaider near Downas Cove, Cornwall 15.viii.91; Near Cadgwith, Cornwall, 18.viii.91.

HENWOOD, DR B.—*Ethmia bipunctella* F. Colyton, East Devon, 27.v.91.

HOARE, R. J. B.—*Diplodoma herminata* Geoff., Constantine Bay near Padstow, Cornwall (VC1), larva crawling in pile of logs 29.vi.90, emerged 2.vi.91; new to Cornwall; one, fluttering against window, same locality, 4.vii.91. *Morophaga choragella* D. & S. Winchester, Hants., larvae 2 and 9.iv.90 in fungus on dead beech, near Crab Wood (VC11), emerged 4.v.90; Beaulieu Road, New Forest (VC11), larvae 1.xii.90 in fungus on dead birch, emerged 30.v–1.vi.91; the Winchester moths are noticeably smaller, paler and contrastingly marked. *Caloptilia azaleella* Brants, Exeter

(VC3), university campus, larvae in folds of azalea, outdoors, 26.ii.91, moths emerged 31.iii–3.iv.91. *Parocystola acroxantha* Meyr., Exeter (VC3), 10, 13.x.91 (2 at light). *Bryotropha basaltinella* Zell. crawling on an old wall near Blisland, Cornwall (VC2), 4.vii.91 (2), 18.vii.91; new to VC2. *Syncopacma taeniolella* Zell. ab. *sircomella* Staint., the variety with no white fascia on forewing; larva 21.vi, on *Lotus corniculatus* L., Teg Down, Winchester, Hants. (VC11), moth emerged 28.7.91. *Nothris congressariella* Bruand, Crantock near Newquay, Cornwall (VC1), larva 12.vii, on *Scrophularia scorodonia*, moth emerged 3.viii.91. *Epichoristodes acerbella* Walk., larva 16.iv.90, crawling on outside of bag of South African apples bought at Sainsbury's, Badger Farm, Winchester, Hants. (VC11), moth emerged 6.v.90; new to Hants. *Pammene herrichiana* Hein., near Crab Wood, Winchester, Hants. (VC11), bred by accident from dead stem of *Clematis vitalba* L. collected during winter amongst beech trees; moth emerged 8.iii.91. *Elophila nymphaeata* L., bred specimens with pupal cases; pupae 4.vii.91, under floating leaves of *Potamogeton* sp., Delford Bridge, Delank River, near St Breward, Cornwall (VC2); moths emerged 12–19.vii.91.

KNILL-JONES, S. A.—*Dolicharthria punctalis* D. & S., Freshwater, Isle of Wight, at m.v. 3.viii.91. *Evergestis extimalis* Scop., Freshwater, Isle of Wight, at m.v. 3.ix.91. *Mecyna flavalis* D. & S., Compton Down, Isle of Wight, 23.viii.91. *Palpita unionalis* Hübn., Freshwater, Isle of Wight, at m.v. 13.x.91.

LANGMAID, DR J. R.—*Stigmella assimilella* Zell., Hayling Island, four bred from *Populus canescens* from larvae found 16.vii.91. *Myrmecozela ochraceella* Tengst., Tulloch Moor, Morayshire, 2.vii.91. *Phyllonorycter platani* Staud., six bred from mines on *Platanus* found in grounds of BMNH South Kensington, 27.x.90. *Yponomeuta rorrella* Hübn., one taken at m.v., Southsea, Hants., 29.vii.91. *Rhigognostis incarnatella* Steud., six bred from *Hesperia matronalis* L., Grantown-on-Spey, Morayshire, larvae found 3.vii.91. *Epermenia insecurella* Staint., one bred from *Thesium humifusum* D.C., Tilshead, Wilts., larva found 28.vii.91. *Coleophora therinella* Tengst., a specimen shown with the larval case, bred from *Bilderdykia convolvulus* (L.) Winchester, Hants., from larva found 27.viii.90; the first time this species has been bred in Britain. *Pseudatemelia flavifrontella* D. & S., Emer Bog, Hants., 1.vi.91. *Depressaria olerella* Zell., Coylumbridge, Inverness-shire, larva on *Achillea millefolium* L. 2.vii.91, moth bred. *Agonopterix pallorella* Zell., Tilshead, Wilts., larva found 28.vii.91, on *Serratula tinctoria* L., moth bred. *Monochroa moyses* Uffen, Portsmouth, Hants., larvae found *Scirpus maritimus* L. 8.ix.90, six moths bred. *Aethes rutilana* Hübn., Beinn Eighe, West Ross, three 5.vii.91. *Acroclita subsequana* H.-S., Portland, Dorset, larvae found *Euphorbia portlandica* L., 24.vi.91, six bred. *Homoeosoma nebulella* D. & S., Southsea, Hants., one 22.viii.91.

LOWE, DR N. R.—Microlepidoptera from Breconshire (VC42). *Eriocrania haworthi* Bradley, Park Wood, Talgarth, 12.iv.87, 10.iv.88. *E. sangii* Wood, Park Wood, 12.iv.87, 10.iv.88. *E. semipurpurella* Steph., Dan yr Ogof, Abercraf, 7.iv.89, 7.iv.89 and Park Wood, 10.iv.88. *Stigmella floslactella* Haw., five reared 11–14.iv.89 from six mines found on a single hazel leaf at Llangorse. *Lampronia luzella* Hübn., Llangorse, 5.vi.88. *L. morosa* Zell., Trefecca, 7.vi.87. *Nematopogon pilella* D. & S., Ogof Flynnon Ddu, 20.vi.91. *Antispila metallella* D. & S., Llangorse, 30.v.86, 2.vi.86. *Narycia monilifera* Geoff., Llangenny, 17.xi.89. *Diplodoma herminata* Geoff., Llangorse, 29.vi.85. *Nemapogon wolffiella* Karsh. & Niels., Llangorse 19.vi.86 and Park Wood, 24.vii.87. *Niditinea fuscella* L., Llangorse, 30.vii.85, 20.vii.89. *Tinea columbariella* Wocke, Llangorse, 18.v.88, one reared from nest of house martin. *T. pallescentella* Staint., Llangorse, 1.viii.85. *Ochsenheimeria urella* F.v.R., Ffawyddog, 9.viii.86. *Bucculatrix albedinella* Zell., Maes y Bwlch, Mynydd Epyynt, 25.v.87. *Prochoreutis sehestediana* F., Ffawyddog, 9.viii.86. *Zelleria hepariella* Staint.,

Craig y Cilau, 29.vii.89. *Eidophasia messingiella* F.v.R., Llangorse 26.vi.90. *Coleophora flavipennella* Dup., Llangenny, larva on oak, moth reared 25.vi.90. *C. albicosta* Haw., Groesffordd, 2.v.90. *C. paripennella* Zell., Waun y Mynach, 17.v.90. *C. murinipennella* Dup., 12.vi.89. *E. subalbidella* Schlag, Waun y Mynach, 17.v.90. *Biselachista cinereopunctella* Haw., Craig Y Cilau, 20.vi.88. *B. albidella* Nyl., Deudraeth Illyd, 4.vii.89. *Telechrysis tripuncta* Haw., Llangorse, 22.vi.86. *Semioscopis steinkellneriana* D. & S., Llangorse, 13.v.91. *Monochroa tenebrella* Hübn., Nant Irfon. *Teleiodes proximella* Hübn., Waun y Mynach, 17.v.90. *B. domestica* Haw., Llangorse, 5.viii.87. *Scythris empetrella* Karsh. & Niels., Llangorse, 27.vi.86. *Cochylis nana* Haw., Llangammarch Wells, 9.v.90. *Philedone gerningana* D. & S., Mynydd Llangorse, 21.vii.85. *Olindia schumacherana* F., Llangenny, 16.vi.90, common and widespread in Breconshire. *Acleris caledoniana* Steph., Ogof Ffynnon Ddu, 4.ix.88. *Endothenia nigricostana* Haw., Trefecca, 3.vii.86. *Epinotia signatana* Dougl., Llangorse, 28.vii.85. *Cydia molesta* Busck, one adult at large, Llangorse, 13.vii.87 and another reared 19.ix.91 from a larva found in a peach. *Myelois cribrella* Hübn., Groesffordd, 12.vi.89. *Euzophora pinguis* Haw., Llangorse, 20.vii.89.

NASH, S.—*Ethmia bipunctella* F., Uffington, Berks., 13.ix.91, taken by E. W. Classey. *Phyllonorycter platani* Staud., BMNH, S. Kensington, 27.x.91, bred *Platanus*. *Telephila schmidtiiellus* Heydm., Tintern, Monmouth, 10.vi.91, *Origanum*, bred. *Nemophora cupriacella* Hübn., Minety, N. Wilts., 5.vii.91, taken at flowers of *Leucanthemum*.

O'KEEFFE, D.—From Petts Wood, Kent: *Coleophora alnifoliae* Barasch, new to Kent; *Caloptilia falconipennella* Hübn., new to Kent; *Stenolechia gemmella* L.; *Argyresthia glaucinella* Zell.; *Caloptilia populetorum* Zell.; *Acrocerops brongniardella* F.; *Mompha raschkiella* Zell.; *M. ochraceella* Curt. From Folkestone, Kent: *Lobesia occidentis* Falk.; *Caloptilia cuculipennella* Hübn.; *Psychoides verhuella* Bruand. From Dartford, Kent: *Pammene agnotana* Reb., third British specimen taken 20.iv.90 and a further four specimens taken 26.iv.91, new to Kent; *Coleophora hemerobiella* Scop. From Bexley and Petts Wood, Kent: *Dystebenna stephensi* Staint. From Nagden, Kent: *Coleophora linosyridella* Fuchs; *Aristotelia brizella* Treits. From Bexley, Kent: *Isophrixistis striatella* D. & S. From Blean, Kent: *Coleophora ramosella* Zell. From Hothfield, Kent: *Coleophora junciolella* Staint.

PALMER, S. M.—A selection of Microlepidoptera recorded in Wiltshire in 1991. *Elachista bisulcella* Don., Harnham Meadows, Salisbury (VC8), at m.v. light. *Biselachista trapeziella* Staint., Dinton (VC8), reared from larvae on *Luzula sylvatica* (Hudson), new to VC8. *Depressaria douglasella* Staint., Salisbury Plain Army Training Area (VC8), reared from larvae on *Daucus carota* L. *Monochroa lucidella* Steph., RAF Chilmark (VC8), at m.v. light, new to VC8. *Aristotelia ericinella* Zell., Landford Bog reserve (VC8), at m.v. light. *Aroga velocella* Zell., Landford Bog reserve (VC8), at m.v. light, new to VC8. *Platyedra subcinerea* Haw., Dinton (VC8), at m.v. light, new to Wiltshire. *Blastobasis* sp. Landford Bog reserve (VC8), at m.v. light on 28.vi.91 and 24.vii.91. *Mompha langiella* Hübn., Dinton (VC8), at m.v. light, new to Wiltshire. *Aethes francillana* F., Salisbury Plain Army Training Area (VC8). *Clavigesta purdeyi* Durr., RAF Chilmark (VC8), at m.v. light, new to VC8. *Synaphe punctalis* F., RAF Chilmark (VC8), at m.v. light, new to Wiltshire. *Microthrix similella* Zinck., RAF Chilmark (VC8), at m.v. light. *Pempelia palumbella* D. & S., Landford Bog reserve (VC8), at m.v. light. *Homoeosoma nebulella* D. & S., Salisbury Plain Army Training Area (VC8), at m.v. light.

SIMPSON, DR A. N. B.—*Teleiodes decorella* Haw., Wyre Forest NNR, Worcs., viii.91. *Dahlica inconspicua* Staint., Wyre Forest NNR, Worcs., bred from cases on old posts, iv.91 *Bacotia sepium* Spey., Wyre Forest NNR, Worcs., bred from cases

on old post and dead larch twigs, v.91. *Nemaxera betulinella* F., Wyre Forest NNR, Worcs., bred dead oak branches, vii.91. *Caloptilia populetorum* Zell., Tiddesley Wood, Worcs., bred *Betula* cones, viii.91. *Acrocerops brongniardella* F., Old Hills, Worcs., bred vi.91.

SKINNER, B.—A drawer showing all the resident species of Crambidae (Pyalidae), mostly taken in 1990 & 1991. A short but variable series of *Ostrinia nubilalis* Hübn. bred from hibernating larvae in stems of mugwort, from Greatstone, Kent, v.90. *Acrobasis tumidana* D. & S., Dungeness, Kent, 1.viii.91 (1); Greatstone, Kent, 27.viii.91 (1); Studland, Dorset, 3.ix.91 (1).

STERLING, COL. D. H., MR M. J. AND DR P. H.—*Caloptilia rufipennella* Hübn., first specimens from inland Hampshire, both larval cones and adults being present around Winchester for the first time in 1991. *Phyllonorycter platani* Staud. from mines collected in Kensington at 1990 Exhibition, following their discovery by Lt Col. A. M. Emmet. *Coleophora therinella* Tengst. and case; early stages previously unknown in the UK. The case was collected from *Bilderdykia convolvulus* L. in 1990 near Winchester VC11. *Elachista eskoi* K. & K., a specimen taken in the Cairngorm NNR in 1977, but initially mis-identified as *E. poae* Staint. (see *Ent. Rec.* 102:192). *Biselachista trapeziella* Staint., a specimen bred from mines in *Luzula sylvatica* (Hudson) growing on the western side of the New Forest, new for Hampshire. *Chinodes fumatella* Dougl., first specimen from inland Hampshire (Winchester VC11), previously only known from the coast. A spread inland from its normal sandy coast habitat has been observed elsewhere. *Lita sexpunctella* F., a specimen taken over heather in North Wales. *Platytes alpinella* Hübn., a specimen taken at m.v. at Didcot, Oxfordshire. This is normally a species of sandy coasts and there appear to be no other records of its appearance in any of the inland counties. *Platyptilia isodactylus* Zell., bred specimens from the first and second generations of this species, from *Senecio aquaticus* Hill, in South Hants., VC11. *Pterophorus fuscolimbatis phillipsi* Huggins, a specimen bred from a larva feeding on *Thymus* from Predannack, Cornwall. *Palpita unionalis* Hübn., a specimen taken at m.v. in Winchester, VC11 on night 11/12.x.1991. *Sorhagenia rhamniella* Zell., a new county record for Hampshire, taken in VC11 Winchester garden, m.v. All three British *Sorhagenia* (above, *S. lophyrella* Dougl. and *S. janiszewskae* Riedl, all gen. det.) have now been recorded from this garden and although *Rhamnus catharticus* L. bounds, the nearest known *Frangula alnus* Miller, is about 7 miles distant, possibly indicating that *Rhamnus* is acceptable to all three species. *Teleiodes scriptella* Hübn., a specimen bred from *Acer campestre* L. from Cawston, Norfolk, collected 27.viii.1990.

WARREN, R. G.—*Morphaga choragella* H.-S., Holme Fen, Hunts., 20.vii.91. *Nemopogon granella* L., Trentham, Staffs., 9.viii.91. *Aphodia bifractella* Dup., Whitford Burrows, Gower, Glamorgan, 18.viii.72, on a flower of *Pulicaria*. *Argolamprotes micella* D. & S., Nicholaston Wood, Gower, Glamorgan, 9.vii.90. *Griselda myrtilana* H. & W., Wetley Moor, Staffs. 21.v.90, abundant in early evening, flying over low growth of bilberry. *Pammene germmanna* Hübn., Nicholaston Wood, Gower, Glamorgan, 21.vi.91. *Dichrorampha alpinana* Treits. Press Heath, Shropshire, 28.vi.91. *Buckleria paludum* Zell. Balterley Heath, Staffs., 31.v.64, flying over *Drosera* on a small floating bog; this is no doubt the 'small bog near Crewe' referred to by Tutt (1897) where W. Thompson found the species between 1850 and 1860. *Platyptilia isodactyla* Zell., Aqualate, Staffs., 16.viii.80. *Stenoptilia saxifragae* Fletch., Wall Grange, Staffs., 23.vi.78; established on saxifrage in a garden, where it still persists.

WILD, E. H.—*Udea fulvalis* (Hübner.), Christchurch, Dorset, 1991.

FOREIGN LEPIDOPTERA

CORLEY, M. F. V.—Lepidoptera from the Algarve, Portugal, October 1990.

(i) Macrolepidoptera. *Drepana uncinula* Borkh., *Utetheisa pulchella* L., *Eilema caniola* Hübn., *Microloxia herbaria* Hübn., *Pseudoterpna coronillaria* Hübn., *Idea alysumata* Millière, *I. minuscularia* Ribbe, *I. longaria* H.-S., *I. predatoria* Hartig, *I. eugenata* Millière, *Scopula decorata* D. & S., *S. minorata* Boisd., *S. ornata* Scop., *Scotopteryx peribolata* Hübn., *Xanthorhoe fluctuata* L., *Epirrhoe sandosaria* H.-S., *Nebula ibericata* Staud., *Catarhoe basochesiata* Dup., *Eupithecia centaureata* D. & S., *Enconista miniosaria* Dup., *Rhoptria asperaria* Hübn., *Petrophora convergata* Vill., *P. narbonea* L., *Crocallis dardoinaria* Donzel, *Peribatodes manuelaria* H.-S., *Campaea honoraria* D. & S., *Gnophos mucidarius* Hübn., *Aspitates ochrearia* Rossi, *Dyscia penulataria* Hübn., *Compsoptera opacaria* Hübn., *Euxoa temera* Hübn., *Agrotis biconica* Koll., *A. trux* Hübn., *A. puta* Hübn., *Cladocerotis optabilis* Boisd., *Ochropleura leucogaster* Frey., *Paradiarsia glareosa* Esp., *Xestia xanthographa* D. & S., *X. kermesina* Mab., *X. agathina* Dup., *Episema grueneri* Boisd., *Aporophyla nigra* Haw., *Dryobatodes cerris* Boisd., *D. monochroma* Esp., *Blepharita spinosa* Chrét., *Polymixis argillaceago* Hübn., *P. dubia* Dup., *Agrochola lychnidis* D. & S., *Omphaloscelis lunosa* Haw., *Cryphia algae* F., *Thalpophila vitalba* Frey., *Pseudenargia ulicis* Staud., *Calopistria latreillei* Dup., *Hoplodrina ambigua* D. & S., *Eublemma parva* Hübn., *Zebeeba falsalis* H.-S., *Trichoplusia orichalcea* F., *Ctenoplusia accentifera* Lefebvre bred from *Mentha suaveolones* Ehr., *Chrysodeixis chalcites* Esp., *Catocala dilecta* Hübn., *Ophiusa tirhaca* Cramer., *Nodaria nodosalis* H.-S.

(ii) Microlepidoptera. *Ateliotum insulare* Rebel, *Monopis imella* Hübn., *Lyonetia daphneella* Staud. bred from *Daphne gnidium*, *Bedellia somnulentella* Zell., *Phyllonorycter crasicolella* H.-S. bred from *Prunus dulcis* (Miller), *Ethmia bipunctella* F., *Carcina quercana* F., *Depressaria badiella* Hübn., *D. erinaceella* Staud., *D. adustatella* Turati, *Agonopterix ulicetella* Staint., *A. rotundella* Dougl., *Oegoconia mediopallidella* Wals., *Symmocoides oxybiellus* Millière, *Blastobasis phycidella* Zell., *Eulamprotes phaeella* Heckford & Langmaid, *Telphusa cistiflorella* Const., *Mirificarma ulicinella* Staud., *Platyedra subcinerea* Haw., *Phthorimaea operculella* Zell., *Scrobipalpa phagnalella* Const., *S. ocellatella* Boyd, *Palumbina guerini* Staint., *Caryocolum provinciellum* Staint., *Syncopacma sangiella* Staint., *Aproaeremia anthyllidella* Hübn., *Dichomeris acuminatus* Staint., *D. limbipunctellus* Staint., *Onebala lamprostoma* Zell., *Brachyacma oxycedrella* Millière bred from berries of *Juniperus phoenicea*, *Lecithocera anatolica* Gozmany, *Glyphipterix umbelici* Hering, *Zelleria oleastrella* Millière, *Hysterophora maculosana* Haw., *Aethes languidana* Mann, *Clepsis siciliana* Rag., *C. consimilana* Hübn., *Acleris variegana* D. & S., *Bactra* sp., *Lobesia botrana* D. & S., *Acroclita subsequana* H.-S., *Selania malcolmiae* Wals., *Cydia fagiglandana* Zell., *Agriphila geniculea* Haw., *A. latistria* Haw., *Ancylolomia palpella* D. & S., *A. disparella* Hübn., *Metasia suppandalis* Hübn., *Arnia nervosalis* Guen., *Palpita unionalis* Hübn., *Hydiris ornatalis* Dup., *Duponchelia fovealis* Zell., *Diasemiopsis ramburialis* Dup., *Antigastra catalaunalis* Dup., *Hellula undalis* F., *Uresiphita polygonalis* D. & S. bred from *Lygos monosperma*, *Endotricha flammealis* D. & S., *Acrobasis* spp., *Ectomyelois ceratoniae* Zell., *Cryptoblabes gnidiella* Millière, *Agdistis frankeniae* Zell., *Stenoptilodes taprobanes* Feld. & Rog., *Stangeia siceliota* Staud., *Calyciphora adamas* Const., *Gypsochares olbiadactylus* Millière, *Emmelinea monodactyla* L.

CRIBB, P. W.—(i) Butterflies taken in the Jura and the Massif des Ecrins, France, in July 1991.

(ii) Examples of butterflies taken in June 1991 in Alberta, Canada: several species which occur in Britain were observed, including *Cynthia cardui* L. in hundreds, *Vanessa atalanta* L., *V. antiopa* L., *Pieris rapae* L., *P. napi* L. and in marshy areas *Carterocephalus palaemon* Pall.

GOATER, B.—(i) A small selection of Noctuidae from the Iberian Peninsula, including two specimens of *Pseudohadena commoda* Staud., recently discovered new to Europe in northern Spain (Plate III, Figure 2), and other local species of which the most interesting were *Agrotis chretieni* Dumont (Prov. Segovia), *A. turatii* Standf. (Prov. Teruel), *Rhyacia cervantes* Reisser (Prov. Avila), *Conisania renati* Oberth. (Prov. Huesca), *Saragossa seeboldi* Staud. (Prov. Madrid), *Mythimna umbriger* Saalmüller (Prov. Valencia), *M. prominens* Walk. (Prov. Alicante), *M. joannisi* Boursin & Rungs (Prov. Valencia), *Cleonymia pectinicornis* Staud. (Prov. Teruel), *Harpagophana hilaris* Staud. (Prov. Murcia) and *Metopoceras albarracina* Hamps. and *M. khalildja* Oberth. (both Prov. Huesca).

(ii) Iberian Geometridae including the little-known *Perizoma flavosparsata* Wagner (Prov. Madrid and Teruel), *Eupithecia limbata* Staud. (S. Spain and Portugal), *E. extremata* F. (Prov. Alicante), *E. gratiosata* H.-S. (Prov. Teruel), *Aplocera bohatschi* Püngeler (Prov. Valencia) and *Lithostege castiliaria* Staud. (Prov. Teruel).

(iii) Two specimens, male and female, of the obscure and little-known arctiid, *Pelosia plumosa* Millière, from the valley of Rio Vinalopó, Prov. Alicante (Plate III, Figures 18 and 19).

(iv) Pyralidae, including four species of *Ancylolomia* to illustrate differences, especially in the structure of the male antennae; some Evergestiinae, including *Evergestis lupalis* Zerny (Sierra de Gredos, Prov. Avila) and *E. dusmeti* Agenjo (Prov. Alicante); several species of *Pyrausta* and *Loxostege*, including four specimens of *Loxostege scutalis* Hübn. (Prov. Madrid); and some Pyralinae including *Macroctenia leucographalis* Hamps. (Prov. Alicante), *Hercynodes miegi* Rag. (Prov. Huesca) and *Synaphe moldavica aberralis* Guen. (Prov. Madrid), *S. moldavica diffidalis* Guen. (Prov. Gerona) and *S. chellalis predotalis* Zerny (Prov. Madrid and Huesca).

HALL, D.—Four males of *Colias crocea* Geoff. captured on Faial Island, Azores, in August 1991, all of a lemon yellow colour with greenish yellow hindwings; several others were seen but not caught.

HALL, N.—Moths caught in France and Spain in April and July 1991. (i) *Phalera bucephala* L. and *P. bucephaloides* Ochs. from Biel, Prov. Zaragoza, and *P. bucephala bucephalina* Staud. from Pto dela Mora, Prov. Grenada, illustrating differences.

(ii) A selection of other species, the most interesting of which were *Euxoa powelli* Oberth. (Prov. Grenada), *Hadena luteocincta altamira* Boursin (Prov. Grenada), *Metopoceras khalildja* Oberth. (Prov. Huesca), *Harpagophana hilaris* Staud. (Prov. Alicante), *Acronicta aceris cazoriensis* Calle (Prov. Grenada), *Pseudohadena halimi* Millière (Prov. Zaragoza), *Hadjina wichti* Hirschke (Prov. Alicante), *Earias vernana* Hübn. (Prov. Huesca), *Lygephila glycyrrhizae* Ramb. (Prov. Castellon), *Parascotia nissenii* Turati (Prov. Grenada), *Phytometra luna* Zerny (Prov. Valencia), *Neoharpyia verbasci* F. (Prov. Zaragoza), *Phaselia algiricaria* Oberth. (Prov. Alicante), *Almeria kalischata* Staud. and the Pyralidae *Evergestis dusmeti* Agenjo (Prov. Alicante), *Myelois fuscocostella* Mann (Prov. Alicante), *Ancylosis rhodochrella* H.-S. (Prov. Alicante) and *Eurhodope cirrigerella* Zinck. (Prov. Zaragoza).

(iii) *Mythimna joannisi* Boursin & Rungs subsp. *arbia* Boursin & Rungs bred from a female taken at light in April at Cullera, Prov. Valencia. *M. joannisi* is an Ethiopian species, but subsp. *arbia* occurs in a few marshes in eastern Spain. Calle (*Noctuidos Espanôles*) says that it is known from only two sites, is single brooded, and occurs

from the end of August to October. However, Barry Goater found that it has a spring generation, and took the exhibitor in April 1991 to Cullera, a third site where he had found it. Four females were kept and given cut reed stems for egg-laying. They produced only one egg-batch between them, tucked into a sheath. The larvae fed happily on cocksfoot grass (*Dactylis glomerata* L.), but grew extremely slowly until they were put into an airing cupboard. There were practically no casualties, and moths started to emerge at the end of July. Moths were also taken at light and sugar at Cullera during a second visit in mid-July. Barry Goater saw the species again in October, so it seems likely that there are three broods each year.

(iv) Other species bred during 1991: *Raphia hybris* Hübn. ab *ovis* female taken at light. Biel, Prov. Zaragoza, reared on poplar; a dark form of *Gonodontis bidentata* Clerck ex gravid female, Col du Galibier, Savoie, France; *Cyclophora puppillaria* Hübn. ex gravid female, St Augustin, Char. Marit., France; *Cucullia scrophulariae* D. & S., bred from larvae on *Scrophularia* sp., Col de Vence, Alp. Marit., France, and *Drymonia velitaris* Hufn., bred from a gravid female taken at light Bazarnes, Yonne, France, larvae reared on oak.

LEES, E.—Butterflies seen during a visit to Les Eyzies, Dordogne, France, between 26.vii and 10.viii.1991. About 40 species were encountered during the two weeks, during which the weather was mostly fine and warm. In particular, *Iphiclides podalirius* Scop. was about in great numbers, and it was disturbing to see so many caught in the radiator grills of cars. Another common species was *Maculinea arion* L.

LUCKENS, DR C.—A selection of butterflies taken in Greece, 9–22.vii.1991.

MANNERING, D.—Five new species and three new subspecies of *Delias* (Pieridae) from Irian Jaya, all named within the last two years by H. J. G. van Mastrigt: *Delias sinak*, *D. bobaga*, *D. sigit*, *D. awongkor* and *D. flavistriga ilagaensis* which are found in the west of the central mountains; *Delias oktanglap*, *D. luctuosa kuning* and *D. nieuwenhuisi poponga* which occur in the Star Mountains in the east, close to the border with Papua New Guinea. *D. nieuwenhuisi* is the replacement name for *D. leucias roepkei* which is now given specific rank.

MIDDLETON, A. P.—A selection of butterflies captured in 1990 and 1991 in various parts of France, including the Pyrenees, Hautes Alpes, Vaucluse and Hérault.

PLANT, C. W.—Seven boxes showing foreign Macroheterocera which are similar to British species, including three species of *Discestra*, three species of *Trigonophora*, *Theria rupicapraria* D. & S. (Denmark) and *T. primaria* Haw. (England), and *Allophytes alfaroi* Agenjo which appears to replace *A. oxyacanthae* L. in Spain.

WALKER, D. H.—A selection of butterflies and moths from Saudi Arabia. Hesperiiidae: *Spialia doris* Walk. (Aden skipper). Papilionidae: *Papilio demoleus* L. (citrus swallowtail). Pieridae: *Colotis fausta* Ol. Lycaenidae: *Tarucus balkanicus* Frey. (little tiger blue), *Freyeria trochylus* Frey. (grass jewel). Nymphalidae: *Junonia orithyahere* Lang. Sphingidae: *Agrius convolvuli* L. (convolvulus hawkmoth), *Macroglossum stellatarum* L. (hummingbird hawkmoth), *Hyles livornica* L. (striped hawkmoth), *Hippotion celerio* L. (silver-striped hawkmoth). Arctiidae: *Utetheisa pulchella* L. (crimson-speckled footman).

TREMEWAN, W. G.—The following *Zygaena* species taken in June 1991 in central and eastern Turkey (Kurdistan): *Z. laeta* (Hübner.), *Z. brizae* (Esp.), *Z. punctum* Ochs., *Z. minos* (D. & S.), *Z. formosa* H.-S., *Z. olivieri* Boisd., *Z. sedi* F., *Z. carniolica* (Scop.), *Z. loti* (D. & S.), *Z. ephialtes* (L.), *Z. viciae* (D. & S.), *Z. filipendulae* (L.).

TUCK, K. R.—Part of a collection of Microlepidoptera taken, with the help of Operation Raleigh venturers, in lower montane primary rainforest in the recently designated Crocker Range National Park, Sabah, East Malaysia. The specimens are

characteristic of a dry-period fauna: leafrollers and flower-feeders are poorly represented.

WARING, P.—Over 90 species of African butterflies and moths collected in the Bangangai Game Reserve on the Sudan/Zaire border 4–13.iv.1982, together with photographs of the rain forest and savannah woodland habitats in which they were recorded. Of particular interest were a suite of unrelated mimetic species all of which have similar orange, black and white markings; included were *Euphaedra eleus* Drury, *E. ruspina* Hewitson, *Aletis erici* Kirby and *Phaegorista similis* Walk. At least some of these are known to be distasteful to predators.

The extreme sexual dimorphism of many species such as *Bebearia tentyris* Hewitson, *B. mandinga* Felder and *Cymothoe caenis* Drury was also illustrated.

WEDD, D.—*Papilio protenor demetrius* Cramer, bred from larvae found on a lemon tree at the Booker Garden Centre, High Wycombe on 28–29.viii.1990. They were placed on a small orange bush kindly loaned by the manager of the centre. In early September, the weather turned cold, and the four larvae had hunched themselves up on the main stem of the foodplant and appeared to be about half their original size; even so, they appeared healthy and were surprisingly difficult to see. They seemed to be undergoing a form of diapause, and it was decided not to try to rush them back into activity by putting them in warm conditions. On 1 October, they were moved into a warmer room, first at 65 °F, then 72–74 °F, and illuminated for 12 h each day with an anglepoise desk lamp. Next day, three larvae commenced feeding very tentatively, seeming unhappy with their foodplant. The leaves were carefully washed (the water in the basin turned black!), and thereafter the three surviving larvae fed up quickly; the fourth was dead. Preparations for pupation were made on 20–21 October. The butterflies, two females and a male, emerged between 6 and 10 November, and were extremely active, even in subdued light: in sunlight, they went almost berserk.

The Booker Garden Centre obtains its citrus trees either direct from Israel or indirectly, via Holland, from various Far East sources, mainly Japan. *P. protenor demetrius* occurs in Japan, China and other places in the Orient. The exhibitor expressed his gratitude for the encouragement and practical assistance from the staff at the Garden Centre, and also to Dr George McGavin and others at the Hope Department of Entomology for help in identifying the species.

YOUNG, D. A.—Three drawers of insects collected during a non entomological trip to Brazil in December 1990. Insects principally from Paulinia and Cipo, Sao Paulo state. Of interest were specimens of *Utetheisa ornatrix*, very similar to *U. pulchella* (L.), a rare migrant to Britain which had an exceptionally good year in 1990. By contrast the Pyralid *Semna auritalis* was completely unlike any pyralid on the British list. The large moth *Ascalapha odorata* (L.), probably closely related to the Catocalinae, was caught by an obliging (if surprised) waiter in a pavement cafe and transported back in a paper bag. Butterfly species represented included *Danaus erippus*, *D. gilippus*, and some interesting Acraeidae, Ithomiidae and Heliconidae.

DIPTERA

Seventeen exhibitors included some examples of this order in their exhibits and the wide range of fly families included was welcome. Two Lauxaniidae, two Pipunculidae and a syrphid (the last not yet identified specifically) were new to the British fauna and the second record and first male of the only British member of the Pseudopomyzidae was another notable find. Notable extensions to known distributions were reported, with several species including the latter new to Scotland.

Ian McLean's excellent photographs added to the diversity of exhibits. The fortuitous inclusion of both sexes of *Physocephala nigra* in the exhibits by Keith Alexander and Ivan Perry permitted the illustration of this species in the accompanying Plate II, Figures 11 and 12.

ALEXANDER, K. N. A.—A selection of flies found during National Trust surveys in 1991, mainly in the Lake District and a few flies from Glos. and Hants. Lake District: *Ctenophora pectinicornis* (L.) (Tipulidae), Side Wood, Ennerdale, 12.vi and Holme Wood, Loweswater, 13.vi; *Symphoromyia crassicornis* (Panz.) (Rhagionidae), Brotherswater, 10.vii and Threepwood Moss, Rox., 14.vii; *Machimus atricapillus* (Fall.) (Asilidae), Aira Beck, Dockray, 9.vii, a rare northern record; *Dolichopus nitidus* Fall. (Dolichopodidae), Little Langdale Tarn, 22.vii and Brotherswater, 11.vii; *Xylota abiens* Meig. (Syrphidae), Brandelhow Park, 3.vii.; *Microdon mutabilis* (L.) (Syrphidae), at two wet heathy areas on Wrigley Estate, Nether Wasdale, vi; *Physocephala nigra* (Deg.), male, Borrowdale, 26.vi (Plate II, Figure 11); *Thecophora fulvipes* R.-D. (Conopidae), Common Farm, Windermere, 12.viii; *Phasia hemiptera* (F.) (Tachinidae), Brandelhow Park, 3.vii, also frequent along wooded banks of Tweed, near Leaderfoot, Ber., 12–13.vii. Glos.: *Oxycera pardalina* Meig. (Stratiomyidae), Bubbs Hill, Churn Valley, 20.vii, calcareous flushes in pasture; *Brachyopa insensilis* Collin (Syrphidae), Oakley Wood, Cirencester Park, 27.v, at sap run on beech; *Ictericia westermanni* (Meig.) (Tephritidae), Whelford Pools, Fairford, 7.ix, coll. R. Gaunt. Hants: *Brachyopa bicolor* (Fall.), Bramshaw Commons, 27.v, at sap run on birch.

CHANDLER, P. J.—(a) Lauxaniidae from the Brent Reservoir, Middx: 14 species of this family collected on the Society's field meeting on 22.vi.91, mostly in carr woodland. Notable species found included *Aulogastromyia anisodactyla* (Loew), *Sapromyza apicalis* Loew and two species of *Homoneura*.

(b) Uncommon Diptera found in 1990 and 1991: *Geomyza venusta* (Meig.) (Opomyzidae), The Sheepleas, West Horsley, Surrey, 16.vi.91 and Aston Rowant, Bucks., 16.vi.90; *Palloptra usta* (Meig.) (Pallopteridae), several localities in Scotland, 1990–91; *P. ambusta* (Meig.), The Sheepleas, Surrey, 29.vi.91; *Amiota basdeni* Fonseca (Drosophilidae), The Sheepleas, Surrey, 16.vi.91, on fallen beech trunks; *Stenomericra delicata* (Collin) (Stenomericridae) (formerly *Diadelops* in Anthomyzidae), The Moors, Bishop's Waltham, Hants., 13.vii.90, both sexes in *Carex paniculata* L. tussocks with several species of Anthomyzidae and a male from same habitat at Greywell Fen, Hants., 14.vii.90; *Scathophaga pictipennis* Oldenberg (Scathophagidae), Glen Gairn, Aber., 17.vii.91 and Loch an Eilein, Inv., 19.x.91.

(c) Some uncommon fungus gnats (Mycetophilidae) collected recently: *Mycetophila schnabli* Dziedzicki, third British record, near Carrbridge, Inv., 17.vii.91; *M. caudata* Staeger, Loch Loy, Nairn, 17.x.91 and Migdale, Suth., 18.x.91; *Exechiopsis dryaspagenesis* Chandler, new to Scotland and England—Dulsie Bridge, Nairn, 20.ix.89, coll. P. J. Chandler; Danby Park, N. Yorks, 12.x.90, coll. J. Mousley; Chatsworth Deer Park, Derby., 11.x.91, coll. A. E. Stubbs; *Brachyzepe armata* Winnertz, Windsor Forest, Berks., 27.vii.91 and Mark Ash Wood, New Forest, Hants., 28.vii.91; *Megophtalmidia crassicornis* (Curt.), carr woodland at Brent Reservoir, Middx, 22.vi.91; *Trichonta fragilis* Gagné, Staffhurst Wood, Surrey, 19.v.91, first record for south-east England; *Sciophila rufa* Meig., a series reared from cocoons found under bracket of *Fomes fomentarius* on birch at Camghouran, Rannoch, Perth., 20.x.91, adults began to emerge 22.x.91.

(d) Keroplatidae new to Scotland: *Keroplatus testaceus* Dalman, a large female reared from a larva found in a web spun under a bracket of *Fomes fomentarius* on a fallen birch branch, Amat Forest, Ross, 18.vii.91, pupated in cocoon on 22.vii.91,

adult emerged 30.vii.91; *Rocetelion humerale* (Zett.), Loch Loy, Nairn, 17.vii.91, coll. A. Godfrey (see note on this species).

(e) *Agathomyia wankowiczii* (Schnabl) (Platypezidae): galls formed by the larvae of this species on the underside of a bracket of *Ganoderma applanatum* collected on a beech stump at Nassogne, Belgium in September 1990; also exhibited were two males and two females of this entirely orange-yellow-bodied species, reared in Denmark from galls on the same fungus by Stig Andersen. This species has not yet been recorded from Britain (although a bracket of the fungus bearing galls attributed to this species has recently been recorded from Surrey by B. M. Spooner, 1991, *Cecidology*, 6 (2): 80–81) but is widespread in Europe; it had recently been seen by Paul Beuk from Hautes Fagnes in Belgium but Denmark is a new country record.

DOBSON, J. AND STUBBS, A. E.—*Pipunculus oldenbergi* Collin (Pipunculidae), new to Britain: St Catherine's Hill, Winchester, Hants., 10.vii.1990, a female noted to be distinctive because the ovipositor base is waisted as viewed from below.

GODFREY, A. G.—(a) Two species of Lauxaniidae newly recorded from Britain, but previously confused with *Lyciella pallidiventris* (Fall.) in collections: *L. stylata* Papp, a common species, Silverwood, Rotherham, S. Yorks., 5.vii.77 and Ashford, E. Kent, 18.vii.87 (both coll. W. Ely); *L. subpallidiventris* Papp, much less common than the other two species, New Forest, Hants., 16.ix.1900, coll. F. C. Adams.

(b) Six species of uncommon Diptera collected in 1991: *Lamprochromus elegans* (Meig.) (Dolichopidae), Braelangwell Woods SSSI, Ross, 18.vii., first northern record; *Asteia elegantula* Zett. (Asteiidae), South Fearn, Isle of Raasay, 8.vii, female at streamside; *Pseudopomyza atrimana* (Meig.) (Pseudopomyzidae) Loch na Dal, Isle of Skye, 11.vii, male, second British specimen; *Stenomicroa delicata* (Collin) (Stenomicroidae), Holwell Mouth, Leics., 31.viii, in tussock of *Carex paniculata* L.; *Anthomyza bifasciata* Wood (Anthomyzidae), Thompson Common, Norfolk, 11.viii, *Carex paniculata* tussocks amongst the food plant *Typha*; *Odinia boletina* (Zett.) (Odiniidae), Pot Ridings Wood, S. Yorks., 27.vii.

GROVE, S.—Thirty-seven species of assorted Diptera, from southern England, collected in 1991 on National Trust surveys. The following were the more notable records: *Ctenophora flaveolata* (F.) (Tipulidae), Cadnam Common, Hants., 20.v; *Limonia goritiensis* (Mik) (Tipulidae), Branscombe East Cliff, S. Devon, 10.viii; *Oxycera analis* Meig. (Stratiomyidae), Cockleford, E. Glos., 20.vii; *O. morrisii* Curt., as latter and Linch Hill, Oxon, 14.vii; *O. pardalina* Meig., Cockleford, 20.vii; *O. pygmaea* (Fall.), Branscombe East Cliff, S. Devon, 10.viii; *Asilus crabroniformis* L. (Asilidae), Badbury Rings, Dorset, 28.viii and the Holies, Streatley, Berks., 30.viii; *Thereva plebeia* (L.) (Therevidae), The Camp, E. Glos., 30.vi; *T. strigata* F., Branscombe East Cliff, 10.viii; *Cheilosia nebulosa* Verrall (Syrphidae), Winford Bridge, Arlington, S. Devon, 22.iv; *Thecophora fulvipes* R.-D. (Conopidae), Daneway Banks, E. Glos., 5.viii; *Acanthophilus helianthi* (Rossi) (Tephritidae), north of Fliesteridge Wood, N. Wilts., 1.vi; *Oxyna nebulosa* Wiedemann (Tephritidae), Shellingford, Beds., 6.vii; *Pherbellia dorsata* (Zett.) (Sciomyzidae), Shellingford, Beds., 6.vii; *Phasia hemiptera* (F.) (Tachinidae), Branscombe East Cliff, 10.viii; *Cylindromyia interrupta* (Meig.) (Tachinidae), Devil's Punchbowl, Surrey, 5.viii.

HALSTEAD, A. J.—Thirteen uncommon Diptera collected in 1991, some of them previously exhibited at ordinary meetings. Also included were: *Orellia falcata* (Scop.) (Tephritidae), chalk grassland at Therfield Heath, near Royston, Herts., 1.vii; *Symphoromyia immaculata* (Meig.) (Rhagionidae), The Shepleas, Surrey, 16.vi; *Thereva valida* Loew (Therevidae), Culbin Sands, Nairn, 16.vii, sand dunes; *Neocnemodon pubescens* Delucchi & Pschorn-Walcher, Barrs Lane, Knaphill, Surrey, 22.iv; *Terellia winthemi* (Meig.) (Tephritidae), The Shepleas, 7 and 28.vii.

HODGE, P. J.—The local, mainly coastal Tabanidae, *Haematopota grandis* Meig., *Atylotus latistriatus* (Brauer) and *Hybomitra expollicata* (Pand.), near Great Deep, Southbourne, W. Sussex, 4.viii.91; *Antichaeta analis* (Meig.) (Sciomyzidae), Burton Mill Pond, W. Sussex, 10.vi.91; *Subclytia rotundiventris* (Fall.) (Tachinidae), West Wood, Netley, S. Hants., 16.vi.91.

HOLLIER, J. A., BELSHAW, R. D. AND WHITEHOUSE, D.—Local dead wood feeding flies, including five species of Syrphidae, *Solva marginata* Meig. (Xylomyiidae) and the very scarce *Ctenophora ornata* Meig. (Tipulidae), collected by malaise traps in woodland at Silwood Park, Berks., in vi–viii.1991.

KNILL-JONES, S. A.—Two local Tachinidae: *Tachina grossa* (L.) and *Linnaemya vulpina* (Fall.) and dwarf examples of two common Syrphidae, all from Freshwater, I.o.W., viii–ix.1991.

MCLEAN, I. F. G.—The following photographs: (a) a larva of *Leucopis* (Chamaemyiidae) feeding on a young aphid, showing the two characteristic posterior spiracles of the larva; the larva had hoisted the aphid clear of the substrate to reduce the likelihood of escape.

(b) an adult female *Leucopis* poised over an aphid while stroking its dorsal surface with its fore tarsi, to 'milk' it of honeydew, mimicking the behaviour of ants; a droplet of honeydew is quickly produced and then rapidly consumed when detected by sensors on the fly's tarsi. It was suggested that this behaviour evolved from honeydew feeding on leaf surfaces.

(c) a female *Chrysops relictus* Meig. (Tabanidae) feeding on honeydew when placed on sallow leaves bearing aphid honeydew indoors; apparently the first record of the female of this genus feeding other than on blood.

PARSONS, M. S.—*Laphria marginata* (L.) (Asilidae), Epsom Common, Surrey, 28.viii.91.

PERRY, I.—Twelve species of uncommon Diptera found during 1991: *Zabrachia tenella* (Jaenicke) (Stratiomyidae), The King's Forest, Suffolk, reared from larvae found under the bark of fallen pines; *Xylophagus cinctus* Deg. (Xylophagidae), Loch Garten, Inv., 24.v, adults on fallen pines; *Rhamphomyia murina* Collin (Empididae), Bridge of Brown, Banff, 26.v, swept from *Salix* flowers; *Empis laetabilis* Collin (Empididae), Tomintoul, Banff., 26.v, swept from dog's mercury; *Leucozona glauca* (L.) (Syrphidae), Chippenham Fen, Cambs., 18.viii, female at *Angelica* flowers, new to county; *Melangyna barbifrons* (Fall.) (Syrphidae), Dulsie Bridge, Nairn, 1.vi, at rowan flowers; *Neocnemodon verrucula* (Collin) (Syrphidae), Emily's Wood, Norfolk, 19.v, male swept in ride in mixed woodland; *Triglyphus primus* Loew (Syrphidae), Chippenham Fen, Cambs., 18.viii, female on tree foliage; Roswell Pits, Ely, Cambs., 19.viii, a male at *Heracleum* flowers; *Physocephala nigra* (Deg.) (Conopidae), Allt a Mhadaidh, E. Ross, 17.vii, female (Plate II, Figure 12) resting on a rock in heather moorland; *Eccoptomera ornata* Loew (Heleomyzidae), Dam Wood, E. Ross, 14.vii, three females in *Deschampsia* tussocks; *Asteia elegantula* Zett. (Asteiidae), Struy Ox Bows, Strath Glass, Inv., 18.vii, female swept from alders.

STUBBS, A. E.—(a) Two flies new to Britain: *Microcephalops vestitus* (Becker) (Pipunculidae), a genus new to the British List, Bentley Woods, Wilts., 8.vii.1990, a female of a very small species with a strongly hooked ovipositor; *Sphaerophoria* sp. B. (Syrphidae), Blean Woods, Kent, 6.v.1976, male, till recently confused with *fatarum* Goeldlin (the *abbreviata* Zett. of the British list) but the genitalia have a short hairy lobe with very short hairs and the habitat is very different.

(b) Flies collected in Scotland in 1991: *Dicranomyia consimilis* (Zett.) (Tipulidae), beside river at Amat Forest, Ross, 18.vii; *Atherix ibis* (F.) (Athericidae), River Tay, Caputh, Perth., 28.vi; *Thereva lunulata* Zett. (Therevidae), by R. Spey at Newtonmore

and at R. Feshie/Spey confluence, Inv., 27.vi; *Oxycera pardalina* Meig. (Stratiomyidae), coastal cliff seepage, Rosemarkie, Ross, 14.vii; *Rhadiurgus variabilis* (Zett.) (Asilidae), River Feshie, Inv., on shingle, 20.vii, two males and a female; *Leptogaster guttiventris* Zett. (Asilidae), Kinrara, near Aviemore, Inv., 21.vii, both sexes in grassland in woodland glade on south facing slope; *Platycheirus nielsenii* Vockeroth (Syrphidae), River Feshie, 20.vii, a curious dwarf male with spots absent on second tergite; *P. sticticus* (Meig.), Alness Valley, 14.vii, male, new to Scotland; *Chalcosyrphus nemorum* (F.) (Syrphidae), Dundonnel Wood, near Ullapool, Ross, the northernmost record on the west coast, 17.vii, a male and female with very reduced abdominal markings; *Xyloa tarda* (Meig.) (Syrphidae), Lauder, Midloth., 27.vi; *X. coeruleiventris* Zett., Ceannacroc, Inv., 5.vii, male and Jedburgh, Rox., 21.vii, female; *Dorylomorpha albitarsis* (Zett.) (Pipunculidae), Glen Garry, Inv., 5.vii; *Tetanops myopinus* Fall. (Otitidae), fore dunes at Coul Links, Suth., 16.vii; *Cordilura rufimana* (Meig.) (Scathophagidae), Kinrara, Inv., 21.vii; *C. similis* Siebke, Insh Marshes, Inv., 2.vii; *Dexiosoma caninum* (F.) (Tachinidae), Ardsvar, Isle of Skye, 12.vii.

UFFEN, R. W. J.—(a) A live *Tephritis formosa* (Loew) (Tephritidae), at rest on a garden plant at Welwyn, Herts., mid-ix.1991.

(b) *Symphoromyia immaculata* (Meig.) (Rhagionidae), Nomansland Common, Wheathampstead, Herts., 30.vi.91, abundant among long meadow grass on gravel; Sundon Hills, Beds., 4.vii, frequent on similar uncut grass on chalk.

WALKER, D. H.—Two Arabian Diptera: a giant robber fly (Asilidae), not yet determined, with wing span 52 mm, body length 45 mm, Al Hasa Oasis; *Eristalinus megalcephalus* (Rossi) (Syrphidae).

COLEOPTERA

ALEXANDER, K. N. A.—A selection of beetles found during National Trust biological survey fieldwork in the Lake District National Park in 1991, plus a few found in Devon, Gloucestershire, Hampshire, Somerset, and Staffordshire. Lake District. *Quedius plagiatus* Mannerh., Side Wood, Ennerdale, 10.vi, and widespread in woods. *Trixagus dermestoides* (L.), Crag Coppice, Eskdale, vi. *Thymalus limbatus* (F.), in dead oak, Glencoyne Wood, Ullswater, 9.vii. *Rhizophagus nitidulus* (F.), Fishgarths Wood, Clappersgate, 13.viii. *Cyanostolus aeneus* (Richt.), in alder along River Caldew, Rose Castle, 27.vii. *Cerylon fagi* Bris., Claife Woods, 19.viii. *Abdera flexuosa* (Payk.), Borrowdale, 26.vi. *Chrysolina fastuosa* (Scop.), Holme Wood, Loweswater, 13.vi; Brandelhow Park, 3.vii. *Chrysomela aenea* L., Borrowdale, 27.vi, and elsewhere. *Phytodecta pallida* (L.), Low Wood, Hartsop, 10.vii. *Phyllobrotica quadrimaculata* (L.), in wet woodland, Wray Castle, 13.viii. *Mantusa obtusata* (Gyll.) and *Rhynchites cupreus* (L.), Nether Wasdale, 5.vi. Devon. *Lomechusa emarginata* (Payk.), in nests of *Formica fusca* L. ants, on open heath, Oxen Tor, Lynmouth, 16.v. Gloucestershire. *Ampedus cinnabarinus* (Esch.), Forest of Dean, 1.vi. *Tetratoma desmaresti* Lat., three from *Stereum* on oak bough, Crickley Hill, 6.x. *Phytoecia cylindrica* (L.), Swift's Hill, 2.vi; also seen at Somerford Keynes, 27.v. *Platypus cylindrica* (F.), abundant in fallen oak bough, Forest of Dean, 14.ix. Hampshire. *Cryptolestes spartii* (Curt.), under sappy bark of hawthorn infested with *Scolytus mali* (Bechst.); *Chaetocnema subcoerulea* (Kuts.), on wet heath; *Xyleborus dispar* (F.), beaten from birch foliage; *X. dryographus* (Ratz.), in dead beech; *X. saxeseni* (Ratz.), in dead beech; all from Bramshaw Commons, 20–23.v. Somerset. *Plegaderus dissectus* Er. and *Enicmus brevicornis* (Mannerh.), Ashton Court Park, 19.v, new county records. Staffordshire. *Xyloterus signatus* (F.), frequent in fallen oak bough, together with *Hylecoetus dermestoides* (L.) Larvae, Star Wood, Churnet Valley, 10.x.

COPESTAKE, D.—Coleoptera (mainly weevils and dead-wood species) collected in 1991. Windsor, March and July: *Ampedus rufipennis* (Steph.), *Pseudocistela ceramboides* (L.), *Trinodes hirtus* (F.), *Curculio betulae* (Steph.), *Hylesinus crenatus* (F.), *H. oleiperda* (F.), *Dorcatoma flavicornis* (F.), *Enicmus brevicornis* (Mannerh.), *Enicmus rugosus* (Herbst), *Tillus elongatus* (L.), *Tomoxia bucephala* Costa, *Lymexylon navale* (L.), *Scraptia fuscule* Müller, P. W. J., *Sphindua dubius* (Gyll.), *Gastrallus immarginatus* (Müller, P. W. J.), *Abdera quadrifasciata* (Curt.). The Lizard, Corn., June 1991: *Anchonidium unguiculare* (Aube), *Cathormiocerus maritimus* Rye, *Sibinia primitus* (Herbst). Stanton Harcourt, Oxon., June 1991: *Agapanthia villosoviridescens* (Deg.). Hod Hill, Eyre, Dorset, June 1991: *Miarus graminis* (Gyll.), *Larinus planus* (F.), *Rhinocyllus conicus* (Fröl.), *Apion urticarium* (Herbst). Dorset, June 1991: *Baris analis* (Ol.), *Trachyphloeus alternans* Gyll., *Sitona gemellatus* Gyll., *Tychius pusillus* Germ. Candleston, Merthy Mawr, Mid-Glam., April 1991: *Sibinia arenariae* Steph., *Trichosirocalus* (formerly *Ceuthorhynchidius*) *thalthammeri* (Schultz), *Gronops lunatus* (F.), *Apion atomarium*, Kirby, W., *Glocianus* (formerly *Ceutorhynchus*) *punctiger* (Gyll.). New Forest, May 1991: *Pogonochaerus hispidus* (L.). W. Cumbria, July 1991: *Otiiorhynchus porcatus* (Herbst), *Sitona lineellus* (Bons.), *Caenopsis waltoni* (Boh.), *Trachyphloeus laticollis* Boh. Abernethy Forest, May 1991: *Acanthocinus aedilis* (L.), *Rhagium inquisitor* (L.), *Dictyopterus aurora* (Herbst), *Ampedus nigrinus* (Herbst), *Pityogenes quadridens* (Hartig), *Tropiphorus obtusus* (Bons.), *Brachonyx pineti* (Payk.), *Dendrophagus crenatus* (Payk.), *Magdalis phlegmatica* (Herbst), *Anthonomus varians* (Payk.), *Furcipes rectirostris* (L.), *Agonum ericeti* (Panz.), *Pogonochaerus fasciculatus* (Deg.), *Coeliodes nigrigris* Hart., *Eremotes ater* (L.), *Aphodius nemoralis* Er., *Ips acuminatus* (Gyll.), *Otiiorhynchus scaber* (L.), *Rhinomacer attelaboides* F., *Abdera flexuosa* (Payk.).

COLLIER, M. J.—*Bembidion schueppeli* Dej., Tima Water, Selkirk, 13.vii.91, on shingle bank. *Badister dilatatus* Chaud., Thompson Common, W. Norf., 17.iii.91, from pond tussock. *Nossidium pilosellum* (Marsh.), Stanford, W. Norf., 17.iii.91, in rotting fungus. *Agathidium convexum* Sharp, Thetford, W. Norf., 17.iii.91, pitfall trap in rabbit burrow. *Stenus incanus* Er., Tima Water, Selkirk, 13.vii.91, shingle bank. *Scirtes orbicularis* (Panz.), Amberley, W. Sussex, 9.viii.91, on dykeside vegetation. *Troglops cephalotes* Ol., Stoke Ash, W. Suff., 6.vii.91, in flight. *Ptinus dubius* Sturm, Grimes Graves, W. Norf., 27.iv.91, on pine in flower. *Mesosa nebulosa* (F.), Whitley Wood, S. Hants., 23.v.91, on fallen oak branch. *Longitarsus quadriguttatus* Pont., Thetford, W. Norf., 3.viii.91, on *Cynoglossum officinale* L. *Acalles ptinoides* (Marsh.), Grimes Graves, W. Norf., 1.iv.91, abundant in pitfall traps amongst heather. *Gymnetron collinum* (Gyll.), Thetford, W. Suff., 27.vi.91, on *Linaria vulgaris* L. The following specimens were found at Eype's Mouth, Dorset, 23–24.v.91: *Tachys micros* (F. W.), *Drypta dentata* (Rossi), *Sphaerius acaroides* Waltl, *Scopaeus minutus* Er., *Sitona gemellatus* Gyll., *Rhinocyllus conicus* Fröl., *Baris analis* (Ol.) and *Cryphalus abietus* Ratz.

CRABNEL, R.—*Agapanthia villosoviridescens* (Deg.), Woodwalton Fen, Cambs., 10.vi.91. *Strangalia quadrifasciata* (L.), Savernake Forest, Wilts., 12.vii.91. *Phytoecia cylindrica* (L.), old brick works, Swindon, Wilts., 4.vii.91. *Leptura sexguttata* F., Savernake Forest, Wilts., 12.vii.91. *Judolia cerambyciformis* (Schränk), Forest of Dean, Gwent, 7.vii.91.

CRONIN, A. R.—A large black scarab from San Pablo, Philippines, 7–19.x.91.

DUFF, A. G.—Rare and interesting beetles from southwest England. *Harpalus tenebrosus* Dej., Lizard Point, W. Corn., 20.vi.91. *Stenolophus skrimshiranus* Steph., Street Heath, N. Som., 20.iv.90. *Agabus uliginosus* (L.), Catcott Heath, N. Som., 28.viii.91. *Sphaerius acaroides* (Waltl), Eype's Mouth, new to Dorset, 14.vii.90.

Abraeus granulum Er., Catcott Heath, new to Som., 8.v.91. *Aphodius consputus* Creutz., Green Down, new to Som., 30.iii.91. *Cardiophorus erichsoni* du Buysson, Lizard Point, W. Corn., 20.vi.91. *Dirhagus pygmaeus* (F.), Great Breach Wood, N. Som., 11.viii.91. *Dermestes maculatus* Deg., reared from larva infesting Masai shield imported from Kenya. *Stegobium paniceum* (L.), imported in dried pasta from Italy. *Epuraea distincta* (Grimmer), Street Heath, new to Som., 20.iv.90. *Cis coluber* Ab., Berkley Wood, new to Som., 13.iii.91. *Osphya bipunctata* (F.), Cleaves Wood, N. Som., 24.v.91. *Oulema erichsoni* (Suff.), Catcott Heath, N. Som., 8.v.91. *Kissophagus hederæ* (Schmitt), bred from dead branch of *Hedera helix* L., Tedbury Camp, N. Som., v.91.

FOSTER, A. P.—Two noteworthy species from East Wretham Heath, 13.x.91: *Quedius nigrocaeruleus* Fauv., from a rabbit burrow and *Aphodius distinctus* (Müller, O. F.), swarming over the rabbit dung. Three specimens of *Quedius balticus* Korge taken in pitfall traps from three localities in Norfolk: Hickling NNR, 23.vi–7.vii.88; Sutton High Fen, 9–23.vi.88; Catfield Fens, 16–30.viii.89.

GROVE, S.—*Dendroxena quadrimaculata* (Scop.), Parc Lodge, Abergavenny, Mon., 28.v.91. *Agrilus sinuatus* (Ol.), Ogbourne N. Wilts., 27.viii.91; Belas Knap, E. Glos., 2.vii.91; Cockleford, E. Glos., 20.vii.91; Rodborough Common, W. Glos., 7.vii.91. *Ampedus sanguinolentus* (L.), Cadnam Common, S. Hants., 20.v.91; Half Moon Common, S. Hants., 20.v.91. *A. balteatus* (L.), Half Moon Common, S. Hants., 20.v.91. *Thymalus limbatus* (F.), Countisbury Cliffs, N. Devon., 16.v.91. *Strangalia quadrifasciata* (L.), Savernake Forest, N. Wilts., 6.vi.91. *Phytoecia cylindrica* (L.), Shellingford, Berks., 6.vii.91. *Cryptocephalus aureolus* Suff., Cherhill Down, N. Wilts., 6.vii.91; Ballard Down, Dorset, 25.v.91; Durlston Head, Dorset, 17.v.91; Barnsley Warren, E. Glos., 2.vii.91; The Camp, E. Glos., 30.vi.91; Burleigh, W. Glos., 22.vi.91; Rodborough Common, W. Glos., 7.vii.91. *C. bipunctatus* (L.), Cadnam Common S. Hants., 20.v.91. *C. bilineatus* (L.), Rodborough Common, W. Glos., 7.vii.91. *C. hypochaeridis* (L.), Rodborough Common, W. Glos., 7.vii.91. *C. moraei* (L.), The Holies, Strealey, Berks., 30.viii.91; Burleigh, E. Glos., 22.vi.91. *Chrysolina hyperici* (Forst.), Quenington, E. Glos., 7.vii.91. *C. menthastri* (Suff.), Worswell, Swindon, N. Wilts., 24.viii.91; Pain's Farm, Oxon, 16.vi.91. *C. varians* (Schall.), Bull Banks, E. Glos., 29.vi.91. *Clytra quadripunctata* (L.), Oakley Wood, E. Glos., 29.vi.91. *Mesites tardii* (Curt.), Watersmeet, Devon., 16.v.91. *Platystomos albinus* (L.), Flisteridge Wood, Wilts., 1.vi.91. *Larinus planus* (F.), Rodborough Common, W. Glos., 7.vii.91.

HALSTEAD, A. J.—Some scarce and local Coleoptera taken in 1990–1991. *Dischirius politus* (Dej.), Culbin Sands, near Nairn, E. Inv. 16.vii.91, under drift wood. *Steganostus villosus* (Fourc.), Knaphill, Surrey, 1.viii.90, at light trap. *Ochina ptinoides* (Marsh.), Rosemarkie Cliffs, E. Ross, 15.vii.91, on ivy. *Antherophagus nigricornis* (F.), R. Beaulieu, near Muir of Ord, E. Ross, 15.vii.91, on hogweed flowers. *Bolitophagus reticulatus* (L.), Amat Wood, E. Ross, 19.vii.91, on *Fomes fomentarius* (col. P. J. Chandler). *Agrilus pannonicus* (Pill. & Mitt.), RHS Garden, Wisley, Surrey, 8.viii.91, on moribund oak. *Silis ruficollis* (F.), Hoe Stream, Mayford, Surrey, 16.vi.90, swept from reeds. *Dorcatoma flavicornis* (F.), RHS Garden, Wisley, Surrey, 1.viii.91, at oak sap run. *Biphyllus lunatus* (F.), Barn Hill Wood, Fryent Country Park, Kenton, Middx, 2.vi.91, in *Daldinia* fungus. *Tanymecus palliatus* F., Therfield Heath near Royston, Herts., 1.vii.91, swept. Also exhibited was a map showing the distribution of records for *Lilioceris lili* (Scop.). The beetle became well established in Chobham, Surrey in 1940 and has since spread throughout Surrey and into adjoining counties. The distribution suggests that the beetle is making slow progress and there is no evidence of spread with the assistance of gardeners or the horticultural trade.

HENDERSON, M.—Some beetles from Hants. *Agrilus sinuatus* (Ol.), Farley Mount Country Park, Winchester, 22.viii.91, from mature hawthorn. *A. laticornis* (Ill.), also from Farley Mount, on hazel, and also New Forest, 23–24.viii.91. *Platycis minutus* (F.), Chandler's Ford, Winchester, 26.viii.91, on nettle leaf in roadside verge.

HOARE, D. I. B. AND R. J. B.—Some beetles collected in Hampshire including the following. *Deleaster dichrous* (Grav.), Winchester, 1.viii.90, at m.v. light. *Omaliopsis ruricola* (F.), Stockbridge, 26.vii.91, on chalk downland. *Amphimallon solstitialis* (L.), Stockbridge, 31.vii.91, in copse on chalk downland. *Dirhagus pygmaeus* (F.), New Forest, 27.vii.90, on dead beech. *Drilus flavescens* (Fourc.), Winchester, 31.v.90, on grass. *Platycis minutus* (F.), New Forest, 21.ix.91, on beech log. *Ochina ptinoides* (Marsh.), Stockbridge, 23.v.90, in building. *Thymalus limbatus* (F.), New Forest, 22.ix.90, under fallen bough. *Diplocoelus fagi* Guer.-Menev., Winchester, 18.iv.90, under dead beech bark. *Lycoperdina bovistae* (F.), Winchester, 10.xii.89, in puffball. *Alphitobius diaperinus* (Panz.), Winchester, 3/4.viii.90, in light trap. *Helops caeruleus* (L.), Winchester, 20.vii.83, crawling on pavement. *Tomoxia bucephala* Costa, New Forest, 18.viii.91. *Variimorda villosa* (Schr.), Stockbridge, 31.vii.91, on flowers of *Pimpinella saxifraga* L. *Mordellochroa abdominalis* (F.), Winchester, 19.v.91, on fir logs. *Metoecus paradoxus* (L.), Winchester, 21.viii.90, on Norway maple trunk. *Arhopalus rusticus* (L.), New Forest, 3.viii.91, 10 p.m. on beech trunk. *Leptura scutellata*, F., New Forest, 27.vii.91, on beech stump. *Strangalia quadrifasciata* (L.), Winchester, 28.vii.91 on flowers of *Pastinaca*. *Lilioceris lili* (Scop.), Winchester, 25.v.91, on *Polygonatum multiflorum* (L.), in mixed woodland. *Cryptocephalus sexpunctatus* (L.), Stockbridge, 12.v.90, on *Corylus avellana* L. *Chrysolina brunsvicensis* (Grav.), New Forest, 12.ix.90, drowning in pool. *C. sanguinolenta* (L.) and *C. violacea* (Müller, O. F.), both Martin Down, 28.iv.91 crawling on ground. *Epitrix atropae* Foud., Broughton Down, 24.viii.90, on *Atropa belladonna* L. *Platystomos albinus* (L.), Winchester, 19.v.91, on *Senecio vulgaris* L. *Polydrusus mollis* (Ström), Winchester, 6.v.90, on *Corylus avellana* L. *Rhynchaenus salicis* (L.), Stockbridge, 20.ix.90, on *Salix cinerea* L. *Mecinus collaris* Germ., Portsea Island, 27.viii.91, in gall on (?) *Plantago maritima* L.

HODGE, P. J.—A selection of species taken during 1991, including six new to Sussex. *Agabus affinis* (Payk.), Burton Mill Pond, W. Sussex, 20.vi.91. *Gyrophaena joyoides* Wüst., Ashburnham Park, E. Sussex, 11.ix.91, in *Polyporus* on beech. *Triplax aenea* (Schall.), Ashburnham Park, E. Sussex, 19.vii.91, in *Polyporus* on beech. *Cis setiger* Mellie, Ashburnham Park, E. Sussex, 11.ix.91, in fungus on beech stump. *Epuraea distincta* (Grimm.), Burton Mill Pond, W. Sussex, 14.vi.91, in small bracket fungus on alder branch. *Abdera flexuosa* (Payk.), Burton Mill Pond, W. Sussex, 20.vi.91, in fungus on alder. Also exhibited were the following. *Achenium humile* (Nic.), *Atheta debilis* (Er.) and *Ilyobates subopacus* Palm, from flood refuse, Combe Haven Valley, Bexhill-on-Sea, E. Sussex. *Aplocnemus nigricornis* (F.) and *Meligethes umbrosus* Sturm, Longrove wood, Hamstreet, East Kent, 11.v.91. *Donacia aquatica* (L.) and *D. crassipes* F., Burton Mill Pond, W. Sussex, 14.vi.91 and 10.vii.91 respectively. *Longitarsus fowleri* Allen, Arundel Park, W. Sussex, 5.v.91, on *Dipsacus fullonum* L. *Apion difficile* Herbst, Thornham Point, Southbourne, W. Sussex, 25.vii.91, on *Genista tinctoria* L. *Hadroplontus* (formerly *Ceutorhynchus*) *trimaculatus* (F.), Arundel Park, W. Sussex, 28.iv.91, at roots of thistles.

HOLLIER, J. A., BELSHAW, R. D. AND WHITEHOUSE, D.—Some beetles collected in Malaise traps in Silwood Park, Berks.: *Platystomos albinus* (L.), 15–22.v.91; *Ischnomera sanguinicollis* (F.), 8.vi–8.vii.91; *Opilo mollis* (L.), 8.v–8.vii.91; *Thanosimus fornicarius* (L.), 8.v–8.vii.91; *Leioporus nebulosus* (L.), 8.v–8.vii.91; *Phymatodesalni* (L.), 8.v–8.vi.91; *Ampedus balteatus* (L.), 8.vi–8.vii.91.

JONES, R. A.—*Orectochilus villosus* (Müller, O. F.), Eridge, East Sussex, 30.vii.89, swimming in profusion in bright sunlight across a fast-flowing stream. *Oligota apicata* (Er.), Nunhead Cemetery, London SE15, 13.vii.91, sweeping. *Ampedus nigrinus* (Herbst), Burwash, East Sussex, 19.vi.91, common by sweeping in pine plantations. *Synchita separanda* (Reiter), three specimens from Nunhead Cemetery, London SE15, 13.vii.91, where it occurred in some numbers under bark of dead sycamore tree together with a single specimen from Knole Park, Sevenoaks, Kent, 19.vi.91, under bark (oak?/sweet chestnut?). *Cicones undatus* Guer.-Men., Nunhead Cemetery, London SE15, 20.x.91, under sycamore bark. *Lissodema quadripustulata* (Marsh.), Steyning, West Sussex, 16.vi.90; Ashtead Common, Surrey, 27.vi.90; Nunhead Cemetery, London SE15, 13.vii.91. *Dryophilus pusillus* (Gyll.), Burwash, 19.vi.91, beating pine tree. *Abdera quadrifasciata* (Curt.), Ashtead Common, Surrey, 27.vi.90, running on rotten log. *Abdera biflexuosa* (Curt.), Nunhead Cemetery, London SE15, sweeping 13, 17 and 22.vii.91. *Ptinus sexpunctatus* Panz., Nunhead, London SE15, 28.v.91, flying inside house. *Malachius marginellus* (Ol.), Winchelsea, East Sussex, 11.vii.91, abundant under low herbage on the shingle. *Cryptolestes spartii* (Curt.), Chobham Common, 9.vii.91, under the burnt bark of a birch log. *Antherophagus pallens* (L.), Chobham Common, Surrey, 9.vii.91, sweeping. *A. nigricornis* (F.), Tunbridge Wells, 21.vii.91, sweeping. *Strangalia quadrifasciata* (L.), Tunbridge Wells, 21.vii.91, on flower of ox-eye daisy. *Cryptocephalus bipunctatus* (L.), var. *sanguinolentus* Scop., White Down, Surrey, 16.v.89, sweeping. *Apion semivittatum* Gyll., very common on annual mercury in London: Camberwell (SE5), Nunhead (SE15), Brockley (SE22), Chelsea (SW10) and South Norwood (SE25), and also in a garden in Newhaven, East Sussex. *Coeliodes erythroleucus* (Gmel.), Eridge, East Sussex, 17.vii.90, beating oak. *Platypus cylindrus* (F.), Eridge, East Sussex, 11.vii.90, running on oak log.

Also shown were a large number of beetles from Costa Rica, Central America, including several large scarabs, chafers and longhorns and a wide variety of brightly patterned chrysomelids.

KIRBY, P. AND LAMBERT, S. J. J.—Some beetles collected during a survey of pollard willows along the River Cam, Cambridge. *Aderus populneus* (Creutz.), 11.xi.90, in powdery rotten wood. *Aromia moschata* (L.), two specimens from 23 which emerged from a log collected 11.xi.90, emerged 28.iv and 18.v.91. *Cossonus parralelepipedus* (Herbst), 10.x.90, in rotten wood. *Dorcatoma flavicornis* (F.), emerged 2.vii.91 from log collected 11.xi.90. *Eledona agricola* (Herbst), 10.x.90, from *Polyporus sulphureus*. *Kissophagus hederæ* (Schmitt), 15.viii.87, beaten from ivy. *Ochina ptinoides* (Marsh.), emerged iii.91 from dead ivy stems collected 11.xi.90. *Paromalus flavicornis* (Herbst), emerged 18.v.91 from log collected 11.xi.90. *Pseudotriphylus suturalis* (F.), 10.x.90, from *Polyporus sulphureus*. *Scaphisoma boleti* (Panz.), 11.xi.90, in rotten wood. *Scymnus limbatus* Steph., 11.xi.90, on willow trunk.

MENZIES, DR I. S.—British *Donacia* and *Plateumaris* species. *D. aquatica* (L.) has become very scarce in our southern counties. Fifteen examples swept from a restricted area of sedge at the margin of Burton Mill-Pond, W. Sussex 14.vi.91. *D. bicolora* Zschach, found resting, in company with *D. simplex*, on leaves of *Sparganium erectum* L., by the margin of Bourne Bottom pond, Bournemouth, Dorset on 25.v, 30.v & 20.vi.91. *D. cinerea* Herbst, Virginia Water, Berks. 15 & 19.v. & 15.vi.90; Burton Mill-Pond, W. Sussex 25.v., 14.vi. & 10.vii.91; Bolder Mere, Wisley, Surrey 20.vii.91. *D. clavipes* F., Black Pond, Esher Common, Surrey 12.v.90; Burton Mill-Pond, W. Sussex 25.v & 10.vii.91. *D. crassipes* F., Oberwater, near Puttles Bridge, Hants. 27.vii.90 & 26.vii.91: on leaves of yellow water lily, *Nuphar lutea* (L.). *D. dentata* Hoppé, Amberley Wild Brooks, W. Sussex 2 & 11.viii.90, 20.vii & 9.viii.91 (first found in this vicinity by Mr Peter Hodge in July 1990), also Manxey Level, Pevensey, E.

Sussex on 24.viii.90. A scarce species, usually seen resting in sunlight between 10.30 a.m. and 3.30 p.m. on the leaves of water plants, especially Arrowhead (*Sagittaria sagittifolia* L.) growing in the dykes. *D. impressa* Payk., Burton Mill-Pond, W. Sussex 25.v. & 14.vi.91 in large numbers on flowering heads of *Carex panniculata* L., also obtained by sweeping sedges at lake margin, Ditchling Common Pond, 20.6.91, a single example by sweeping. *D. marginata* Hoppé, a common species usually found resting on leaves and the flowering heads of *Sparganium erectum* L. at the margins of lakes and canals. *D. obscura* Gyll., late afternoon, walking up sedges at the side of a stream adjacent to Loch Garten, Inverness 10.vii.87. *D. semicuprea* Panz., usually plentiful where found, on leaves of reed grass, *Glyceria maxima* (Hartm.) at margin of ponds and dykes. *D. simplex* F., a common species. *D. sparganii* Ahrens, Barcombe Mills, E. Sussex 25 & 28.viii.90, 28.vii & 9.viii.91 (first noticed here by C. J. Saunders in the 1930s and re-discovered by Mr Peter Hodge, 28.ix.86), at rest on the floating leaves of *Sparganium emersum* Rehmman in the river and connecting streams. *D. thalassina* Germ., Bolder Mere, Wisley, Surrey 14.vi.89, 27.v & 18.vi.91, by sweeping. *D. versicolore*a (Brahm), Amberley Wild Brooks, W. Sussex 2, 8 & 11.viii.90, and Puttle's Bridge, Brockenhurst, Hants. 26.vii.91, mainly resting on floating leaves of water plants. *D. vulgaris* Zschach, a widely distributed and common species generally found on leaves of *Sparganium erectum* or *emersum* in ponds and water courses. *P. affinis* (Kunze), Thursley Common Bog 2.vi.68; Burton Mill-Pond W. Sussex: on 25.v. a few, and on 14.vi.90 in large numbers, by sweeping sedges at lake margin. *P. braccata* (Scop.), Burton Mill-Pond, W. Sussex 28 & 29.vi.91 by beating *Phragmites australis* (Cav.) at lake margin. *P. discolor* (Panz.), Thursley Common Bog, Surrey 2.vi.68, by sweeping; Loch Garten, Inverness 12.vii.87, on sedges; Bolder Mere, Wisley, Surrey 3.v & 14.vi.89, by sweeping at lake margin; Virginia Water, Berks, by sweeping 15.vi.90. *P. sericea* (L.). Insh Marsh Reserve, Kingussie, Inverness, 11.vii.89, by sweeping at dyke margins, Ditchling Common Pond, E. Sussex 20.vi.91: two, by sweeping.

OWEN, PROF. J. A. AND MENDEL, H.—Some little known British beetles, most of which have only recently been discovered new to Britain. *Cercyon alpinus* Vogt, Braemar, South Aberdeen, viii.90, in deer dung. *Pseudomicrodota jelineki* (Krasa), Box Hill, Surrey, vii.91, in old bonfire ashes. *Schistoglossa benicki* Lohse, Loch Garten, Easternness, v.85, in moss. *Atheta (Mocyta) fussi* (Bernh.), Headley, Surrey, vii.90, in flight interception trap. *Aleochara pauxilla* (Muls. & Rey), Richmond Park, Surrey, viii.80, in deer dung. *Aleochara verna* (Say), Tarbet, Outer Hebrides, vii.75, under rotting seaweed. *Dorcatoma ambjoerni* Baranowski, Windsor Forest, Berks., bred from fungus on beech, collected ii.88, adults emerged vi.90. *Ostoma ferrugineum* (L.), Braemar, South Aberdeen, viii.90, under bark of Scots pine. *Chrysanthia nigricornis* (Westhoff), Glen Tannar, South Aberdeen, reared from pine branch containing larvae collected viii.90, adult emerged vii.91. *Ceutorhynchus cakilis* Hansen, North Uist, Outer Hebrides, vii.79, swept.

PARSONS, M. S.—A selection of beetles recorded since 1988. *Clivina collaris* (Herbst), *Bembidion maritimum* Steph. and *Perileptus aureolus* (Creutz.), Afon Mawddach, Mer., 28.iv.91 and *B. laterale* (Sam.) 27.iv.91. *Ophonus azureus* (F.), Great Ormes Head, Caer., 26.iv.91. *Staphylinus ophthalmicus* Scop., Wangford Warren, W. Suff., 5.ix.90. *Cetonia aurata* (L.), Wimbledon Common, Surrey, 18.vii.91. *Lymexylon navale* (L.), Richmond Park, Surrey, 10.viii.91. *Oncomera femorata* (F.), Atherington, W. Sussex, 16.x.90, on ivy blossom. *Cryptocephalus aureolus* Suff., *C. moraei* (L.) and *C. bipunctatus* (L.), Wakerley, railway cutting, Northants., 6.vii.91. *Dibolia cynoglossi* (Koch, J. D. W.), Dungeness, Kent, 20.v.91 and Rye Harbour, E. Sussex, 26.iv.90. *Cryptorhynchus lapathi* (L.), Woodwalton

Fen, Hunts., 16.ii.91, adult and gall. *Ethelcus* (formerly *Ceutorhynchus*) *verrucatus* Gyll., Dungeness, Kent, 4.vii.89.

PORTER, D.—Various local and interesting Coleoptera. *Cardiophorus erichsoni* du Buy., Salcombe, Devon, 29.v.91, beating gorse, previously recorded in this area by K. G. Payne in June 1976 suggests a well established colony. *Trixagus elateroides* (Heer), Eastbourne, E. Sussex, 11.v.91, quite common at roots of *Glaucium flavum* Crantz growing on shingle. *Anisoxya fuscata* (Ill.), Hailsham, new to Sussex, 6.viii.91, quite common beating dying apple tree. *Aulonium trisulcum* (Fourc.), Hailsham, E. Sussex, 15.vii and 4.viii.90, at light trap. It was suggested that it might be feeding on the larvae of *Scolytus mali* (Bech.) or *S. rugulosus* (Müller, P. W. J.) in a nearby apple tree. *Silvanus bidentatus* (F.), Battle, new to E. Sussex, 8.iv and 25.iv.91, beating sawn offcuts of oak. *Cryptocephalus coryli* (L.), Streatley, Berks., 9.vi.91. A female was taken on hawthorn blossom and a male from hazel—giving rise to 55 faecal-cased eggs. The living larvae, being reared on hazel, were also exhibited. *Polydrusus confluens* Steph., Salcombe, Devon, 29.v.91, beating gorse. *Ethelcus* (formerly *Ceutorhynchus*) *verrucatus* Gyll., Eastbourne, E. Sussex, 11.v.91, in numbers at roots of *Glaucium flavum* Crantz growing on shingle. *Scolytus mali* (Bech.), Hailsham, apparently new to Sussex, 29 and 31.vii and 5.viii.91, on apple tree being killed by honey fungus.

WALKER, D. H.—Some beetles from Saudi Arabia: *Anthia duodecimguttata* Bon., *Scarites guineensis* Dej., *Brachinus nobilis* Dej., (Carabidae); *Eretes sticticus* L., *Procladius pictus* Sharp, (Dytiscidae); *Adesmia cancellata* Klug, (Tenebrionidae); *Steraspis speciosa* Klug, *Judolis euphratica* Cast. & Gory, (Buprestidae); together with several tenebrionids and a meloid.

YOUNG, D.—Three species of large chafer and a large longhorn collected casually in Paulinia and Cipo, Sao Paulo, Brazil.

HEMIPTERA

ALEXANDER, K. N. A.—Some Heteroptera from the 1991 work of the National Trust biological survey in the Lake District National Park. Three species apparently at the northern edge of their British range in Cumbria: *Agramma laeta* (Fall.), saltmarsh, Plumpton Marsh, Ulverston, 19.vi; *Xylocoris cursitans* (Fall.), widely in ancient woodland and pasture-woodland, this specimen from Fisgarths Wood, Clappersgate, 13.viii; *Polymerus palustris* (Reuter), widespread in rush fields, these from Grasmere, 27.vi. Two northern specialities: *Salda morio* Zett., wet heath/mire, Ennerdale, 19.vi; *S. muelleri* (Gmel.), wet heath at Nether Wasdale, 4.vi.

CRABNEL, R.—A large cicada found in a bunch of grapes, imported from Greece, purchased in a Sainsbury's supermarket, 24.viii.91.

CRONIN, A. R.—A large grey and red coreid (?) bug from San Pablo, Philippines, 7–19.x.91.

HODGE, P. J.—*Peritrechus gracilicornis* Puton, Great Deep Southbourne, W. Sussex, 25.vii.91, swept. *Plesiodema pinetellum* (Zett.), Midhurst Common, W. Sussex, 1.vii.91, on *Pinus sylvestris* L. *Chartoscirta elegantula* (Fall.), Loch Garten RSPB reserve, Easternness, 23.v.91, beside peat pool.

JONES, R. A.—Some bugs from Costa Rica, Central America, collected during August and September 1991. These were mainly large and brightly coloured species of Pentatomidae, Coreidae, Lygaeidae and Homoptera.

KIRBY, P. AND LAMBERT, S. J. J.—Two species collected as part of a survey of pollarded willows along the River Cam, Cambridge: *Agnocoris reclairi* (Wagner) and *Idiocerus herrichi* Kirschbaum, 15.viii.87. The following species collected during

the Heteroptera Study Group Meeting in Perthshire, vii-viii.90. *Bothynotus pilosus* (Boh.), Tombuie Cottage, 1.viii.90. *Chlamydatus pulicarius* (Fall.), Lochan an Daim, 30.vii.90. *C. wilkinsoni* (Dougl. & Scott), Lochan an Daim, 30.vii.90, Croch na Keys Wood, 1.viii.90. *Globiceps dispar* (Boh.), Straloch Moraines, 31.vii.90. *Hallodapus rufescens* (Burmeister), Straloch Moraines, 31.vii.90. *Lamproplax picea* (Flor.), Stormont Loch, 31.vii.90. *Orthotylus fuscescens* (Kirschbaum), Black Wood of Rannoch, 30.vii.90. *Pachytomella parallela* (Meyer-Dur), Lochan an Daim, 30.vii.90. *Pilophorus clavatus* (L.), Ballinluig Shingle Island, 28.vii.90. *Polymerus unifasciatus* (F.), var. *lateralis* Hahn, Kinnoull Hill, 28.vii.90. *Salda muelleri* (Gmel.), Lochan an Daim, 29.vii.90. *S. furcicola* (Sahl.), Loch Leven, 3.viii.90. *Teratocoris caricis* Kirkaldy, Dunalastair Water, 30.vii.90; Lochan an Daim, 29.vii.90. *T. viridis* Dougl. & Scott, Ben Lawers, 1.viii.90; Lochan an Daim, 30.vii.90. *Cicadula intermedia* (Boh.), unnamed loch (NN802432), 3.viii.90. *C. saturata* (Edw.), Methaven Moss, 2.viii.90. *Dicranotropis divergens* Kirschbaum, Straloch Moraines, 31.vii.90. *Diplocolenus bensoni* (China), Ben Lawers, 1.viii.90. *Idiodonus cruentatus* (Panz.), Ballinluig Shingle Island, 28.vii.90. *Macrosteles alpinus* (Zett.), Ben Lawers, 1.viii.90. *M. fieberi* (Edw.), Croch na Keys Wood, 1.viii.90; Lochan an Daim, 29.vii.90. *Psammotettix frigidus* (Boh.), Ben Lawers, 1.viii.90. *Sorhoanus xanthoneurus* (Fieb.), Croch na Keys Wood, 1.viii.90.

WALKER, D. H.—Some bugs from Saudi Arabia: *Nezara viridula* L., (Pentatomidae), *Lygaeus equestris* L. (Lygaeidae), *Laccotrephes fabricii* Stal. (Nepidae), *Psalmocharis flavicollis* L., *Melampsalta musiva* Germ. (Cicadidae).

HYMENOPTERA

ARCHER, M. E.—A map showing the distribution of the social wasp *Dolichovespula saxonica* (F.) in Britain. Specimens of this wasp, which is a recent arrival in Britain, taken in Norfolk and Sussex were exhibited, together with others from Germany, France, Japan and Ussuriland, USSR, for comparison. The exhibitor reported that *D. saxonica* had been recorded as nesting in Britain in 1991 and that the nests seemed very prone to attacks by larvae of the pyralid moth, *Aphomia sociella* (L.).

Also exhibited were some notable species of aculeate Hymenoptera taken in the Channel Islands of Jersey and Sark in 1989. These were the chrysid wasp *Hedychrum rutilans* Dahlbom, the pompilids *Evagetes pectinipes* (L.) and *Aporus unicolor* Spin., the sphecids *Dinetus pictus* (F.), *Oxybelus argentatus* Curt. and *Philanthus triangulum* (F.), the andrenid bee *Andrena argentata* Smith F., and the halictid bees *Lasioglossum brevicorne* (Schenck) and *L. prasinum* (Smith F.).

GROVE, S.—Some notable or Red Data Book specimens of aculeate Hymenoptera taken in England and Wales in 1991. These were: Tiphiidae—*Myrmosa atra* Panz., 25.viii, Dry Sandford Pit, Berks., and 14.viii, Haw Bridge, R. Severn, Glos.; *Methoca ichneumonides* Lat., 26.viii, Cadnam Common, S. Hants.; *Tiphia femorata* F., 30.vii, The Holies, Streatley, Berks.; *T. minuta* van der Linden, 29.vi, Bull Banks and Oakley Wood, 3.vii, Overlay Wood, all E. Glos.; Pompilidae—*Aporus unicolor* Spin., 10.viii, Branscombe East Cliff, S. Devon; *Arachnospila minutula* (Dahlbom), 25.viii, Dry Sandford Pit, Berks.; Sphecidae—*Gorytes bicinctus* (Rossius), 10.viii, Branscombe East Cliff, S. Devon; *Psen bicolor* Jurine, 6.vii, Shellingford, Berks.; Hylaeidae—*Hylaeus signatus* (Panz.), 28.viii, Badbury Rings, Dorset, 28.viii, Tidpit, Martin, Hants, 6.vii, Shellingford, Berks and 25.viii, Dry Sandford Pit, Berks.; Melittidae—*Melitta tricincta* (Kirby), 26.viii, Idmiston, S. Wilts.; Andrenidae—*Andrena carbonaria* 26.iv, Croyde to Baggy, N. Devon and 17.v, Durlston Head, Dorset; *A. hattorfiana* (F.) and *A. simillima* Smith F., 10.viii, Branscombe East Cliff, S. Devon; *A. varians*

(Rossius) and *A. labiata* (F.), Parc Lodge, Abergavenny, Mon.; *A. falsifica* Perkins R. C. L., 28.iv, Hembury, S. Devon; Anthophoridae—*Nomada fulvicornis* F. and *N. fucata* Panz., 27.iv, Winford Bridge, Arlington, N. Devon, the latter species also 20.v, Cadnam Common, S. Hants.; Megachilidae—*Osmia bicolor* (Schr.), 7.vii, Rodborough Common, W. Glos.; *Megachile lignesecca* (Kirby), 25.viii, Clouts Wood, Swindon, N. Wilts.; *Chelostoma florisomne* (L.), 20.v, Cadnam Common S. Hants.; *Coelioxys inermis* (Kirby), Landford Bog, S. Wilts.; Halictidae—*Sphecodes crassus* Thom. and *S. reticulatus* Thom., 20.v, Cadnam Common, S. Hants., the former species also 24.viii, Worswell, Swindon, N. Wilts., 28.viii, Badbury Rings, Dorset, 7.vii, Rodborough Common, Glos.; *Lasioglossum xanthopum* (Kirby), 17.v, Durlston Head, Dorset.

HALSTEAD, A. J.—Some scarce or local hymenoptera, mostly Symphyta, taken in 1991. These were: Xiphydriidae—a female *Xiphydria longicollis* (Geoff.) (Plate II, Figure 10) taken 3.ix, on an oak sap run, RHS Garden, Wisley, Surrey. This is believed to be only the second record for this species in Britain this century. Siricidae—*Urocera gigas* (L.), a small example of a male found 29.vii in an office at RHS Garden, Wisley. Males are much less frequently encountered than females of this conifer feeding woodwasp. Argeidae—*Arge clavicornis* F., swept 19.v in deciduous woodland at Staffhurst Wood, near Oxted, Surrey. Cimbicidae—*Zaraea fasciata* (L.), on snowberry (*Symphoricarpos*) in a garden, 21.vii, Royston, Herts.; *Cimbex femoratus* (L.) swept by M. Acklam from moorland, 14.vii, near Balnagrantach, E. Inv. Tenthredinidae—*Protoemphytus pallipes* (Spin.) swept from violets in a lightly wooded meadow, 27.iv, The Sheepleas, near W. Horsley, Surrey. Larvae of this species are an occasional pest of *Viola* spp. in gardens but it is infrequently seen. *Allantus ruficinctus* (Retz.), swept 16.vi, at The Sheepleas, Surrey; *Periclista albida* (Klug), swept from oak, 9.v, Barrs Lane, Knaphill, Surrey; *Tenthredo zona* Klug, swept 12.v, Barrs Lane, Knaphill and at The Sheepleas, Surrey; *T. schaefferi* Klug, on hogweed flower, 18.viii, Barrs Lane, Knaphill, Surrey; *T. mioceras* (Enslin) and *T. olivacea* Klug, swept from birch in moorland, 14.vii, near Balnagrantach, E. Inv.; *Pristiphora moesta* (Zaddach) swept 10.v by bank of R. Wey, RHS Garden, Wisley, Surrey. Chrysididae—*Omalus puncticollis* (Mocsary), swept 28.vii in woodland clearing, The Sheepleas, Surrey. Vespidae—*Dolichovespula media* (Retz.), a worker taken from an aerial nest, 22.vii, at RHS Garden, Wisley, Surrey.

UGHTON, W.—Some aculeate hymenoptera of the families Andrenidae and Anthophoridae taken in the Swindon, Wilts., area during 1988–91. These were *Andrena bucephala* Steph. and *A. hattorfiana* (F.) taken 13.v.91 and 20.viii.88 respectively at Clouts Wood, Swindon; *Nomada xanthosticta* (Kirby), 31.iii.90, Centenary Copse, Swindon, and 7.v.89, Coate Water Country Park, Swindon; *N. lathburiana* (Kirby), 7.v.89, Coate Water Country Park, Swindon, and *N. hirtipes* Pérez, 12.v.90, Clouts Wood, Swindon.

UFFEN, R. W. J.—Six species of fossorial bees and wasps found at a former gravel pit at Mardley Heath, Welwyn, Herts., 4–8.ix.91. These were the sphecid wasp *Crossocerus pusillus* Lapeletier & Brullé, the pompilid wasp *Arachnospila anceps* (Wesm.), the halictid bees *Halictus minutissimum* (Kirby) and *H. morio* (F.), all of which were nesting in a south-facing gravel cliff. *Sphecodes gibbus* (L.) was taken as it investigated the *Halictus* nest tunnels. Females of the pompilid wasp *Priocnemis parvula* Dahlbom were catching *Lycosa* spiders and nesting in a nearby horizontal area.

WALKER, D. H.—Some aculeate Hymenoptera collected in the Central and Eastern Arabia regions of Saudi Arabia during 1980–90. These were the potter wasps (Eumenidae) *Delta dimidiatipenne* Saussure and *D. campaniforme* F.; a spider wasp (Pompilidae) *Cyphononyx bretonii* Guér.; a cuckoo wasp (Chrysididae) with emerald

green metallic colouring, *Stilbum cyanurum*; a winged soldier ant (Formicidae) *Camponotus xerxes* Forel; a large digger wasp (Sphecidae) with a body length of 30 mm and 50 mm wing span, *Stizus vespoides* Walk.

ODONATA

COLLINS, G. A.—A demonstration of methods of colour preservation in four pinned specimens of the scarce aeshna, *Aeshna mixta* Lat. Specimen 1 had been allowed to dry naturally, resulting in almost complete loss of colour and markings. Specimen 2 had been hand painted. Specimen 3 had been immersed in acetone for 24 h immediately after killing and setting. This preserved the colours and markings reasonably well but the eyes developed a pale opacity. This problem was overcome in specimen 4 by removing the head prior to treating the rest of the body as for specimen 3.

Also exhibited were some uncommon species recorded in 1991. These were the white-faced dragonfly, *Leucorrhinia dubia* (van der Linden), 1.vi, frequent on damp moorland and sphagnum bog at Easternness, Scotland; the southern coenagrion, *Coenagrion mecuriale* (Charp.), 2.viii, fairly common at a site in the New Forest, S. Hants., it favours sites on heathland where water of a relatively high pH flows through more acidic areas; the scarce ischnura, *Ishnura pumilio* (Charp.), 2.viii, at the same site as the previous species but very scarce, only three or four specimens seen on one visit out of three.

DICTYOPTERA

GROVE, S.—A native cockroach *Ectobius lapponicus* (L.) taken 20.vi.91 at Cadnam Common, S. Hants.

HALSTEAD, A. J.—An unidentified praying mantis found on orchids imported from Thailand.

Plate III. ANNUAL EXHIBITION 1991

1	2	3
4	5	6
7	8	9
10	11	12
		15
		16
	13	17
		18
	14	19

- 1: *Spodoptera cilium*, Coverack, Cornwall, 30.ix.90, J. Clarke.
- 2: *Pseudohadena commoda*, Northern Spain, 14.v.90, B. Goater.
- 3: *Hecatera bicolorata*, Dungeness, Kent, 6.vi.91, S. Clancy.
- 4: *Semiothisa clathrata*, Holkham, Norfolk, 12.vii.72, T. Harman.
- 5: *Agrochola haematidea*, 12.x.91, C. Smith. 6: *Peribatodes manuelaria*, Lydd, Kent, 27.vii.90, S. Clancy. 7: *Aplocera efformata*, Collyweston, Northants., 14.viii.91, P. Warren. 8: *Scotopteryx peribolata*, Studland, Dorset, 12.ix.90, D. Young. 9: *Orthosia gothica*, ab. *circumsignata*, Dungeness, iii.90, S. Clancy. 10: *Abraxas grossulariata*, Chesterfield, 21.vi.74, T. Harman. 11: *Cyclophora punctaria*, Northants., 7.v.91, G. Higgs. 12: *Euproctis chrysorrhoea*, Spurn Head, Yorkshire, 29.vii.91, P. Winter. 13: *Arctia caja*, Southwold, Suffolk, 2.viii.91, B. Skinner. 14: *Arctia caja*, Medmenham, Bucks., 15.vii.64, T. Harman. 15: *Psammotis pulveralis*, Dungeness, 3.viii.90, S. P. Clancy. 16: *Aglossa caprealis*, Colchester, Essex, 22.vii.91, B. H. Harley. 17: *Udea fulvalis*, Christchurch, Dorset, 1991, E. H. Wild. 18: (female) and 19 (male), *Pelisia plumosa*, Rio Vinalopo, Alicante, 5.x.91, B. Goater.

Photo: D. E. Wilson



Plate III. ANNUAL EXHIBITION 1991

WALKER, D. H.—Some praying mantises taken in the Central and Eastern regions of Saudi Arabia during 1980–90. These were a brown desert dwelling *Mantis* sp., an *Empusa* sp. found at oases, the fairy mantis *Oxythespis nilotica* Giglio-Tos, and the common ground mantis *Eremiaphila braueri* Kraus, a species that resembles a stone.

ORTHOPTERA

CRONIN, A. R.—A live unidentified grasshopper collected in mid October at San Pablo, Philippines.

WALKER, D. H.—Some grasshoppers (Acrididae) collected in the Central and Eastern regions of Saudi Arabia during 1980–90. These were the Egyptian tree locust *Anacridium aegyptium* L., a grass pest species *Aiolopus thalassinus* F., and the milkweed toad *Poekilocerus bufonius* Klug. This last species has red wings which is an indication it is distasteful to birds.

ARACHNIDA

CRONIN A. R.—A live unidentified spider collected in a coconut plantation in mid October at San Pablo, Philippines.

UFFEN, R. W. J.—A specimen of the araneid spider *Lariniodes cornutus* (Clerck) which was found cryptically concealed in the expanded down of an old *Typha* reed-mace seed head that had formerly been infested by caterpillars of the momphid moth *Limnoecia phragmitella* Staint. The specimen was collected on 1.ix.91 at Tewinbury, Welwyn, Herts.

ILLUSTRATIONS

AGASSIZ, D. J. L.—Several display panels containing coloured photographs, maps and graphs to show the progress being made in mapping the distribution of the Firethorn leaf-miner moth *Phyllonorycter leucographella* (Zell.) since its discovery in Britain in 1989. The accompanying maps showed the geographical distribution and density of the moth and its continuing spread, as well as that of pyracantha, the foodplant of *P. leucographella*.

CHURCH, S. H., PORTER, J., AND SKINNER, B. F.—Eight albums of colour photographs of the larvae and adults of the British Macrolepidoptera. Over the years the number of albums and species illustrated has gradually increased. This year all but 24 species were represented.

ENGLISH NATURE AND THE JOINT NATURE CONSERVATION COMMITTEE ON INVERTEBRATE CONSERVATION—A large eight-panel display consisting of photographs, maps, graphs and text illustrating the threats to many sites. Ways to avert the deterioration of the habitats and of their fauna and flora were referred to.

HARMER, A. AND SKINNER, B. F.—Nine colour photographs of *Colias alfacariensis* Berger, Berger's clouded yellow, all taken on Portland Island in 1991, when the butterfly was found breeding there. The photographs showed the habitats and some of the pupae of the species *in situ*.

HENDERSON, M. K.—Photographic prints of beetles and other insects, in three sections. (1) The stag beetle *Lucanus cervus* (L.), lesser stag beetle *Dorcus parallelipedus* (L.), and 'summer chafer' *Amphimallon solstitialis* (L.), photographed in Ravensbury Park (S.W. London), Summer 1991. (2) Feeding behaviour in the larva of *Cicindela campestris* L. A series of photographs (taken many years ago) showing